MONTANA BUSINESS QUARTERY

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WORK *and* PAY *in* MONTANA

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Montana Business Quarterly

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Going Back to the Future

Economic Change in Montana

by Steve Seninger

Work and pay have received considerable attention in recent public discussions about Montana's economy. One of the more frequently heard—but somewhat misleading—sound bites is the "recovery" of the Montana economy, suggesting that the state is in an economic recession. But from a jobs perspective, the Montana economy is doing quite well. Employment levels and job growth have been strong during the 1990s. What is of concern, however, is Montana's low wages and low per capita income (46th in the nation), problems more reflective of long-term economic growth than of short-term recessionary flips.

Montana's volatile growth record in the 1970s and 1980s helps explain the state's below average wages and per capita income. Indeed, a brief look at the state's economic growth shows that our low wage problem did not appear only yesterday. Moreover, several fundamental characteristics of Montana's economy have affected our current wage and income position. There is no single factor—such as taxes or the loss of mining jobs, for example—that explains the state's low wages. All of this means there is no easy "silver bullet," no one-shot policy action such as taxes or industry recruitment that will, by itself, turn things around in short order.

Economic Growth and Change in Montana's Economy

A number of dramatic shifts have occurred in Montana's economy over the past several decades. In 1970, almost two of every four Montana workers were employed in basic industries—farming, federal government, forestry, manufacturing, mining, and nonresident travel—producing goods for sale outside the state economy. By 1997, only one of every four Montana workers was employed in basic industries (Figure 1).

Between 1970 and 1997, the basic sectors' share of total employment dropped from 40 percent to 24 percent, with some of the biggest drops occurring in agriculture. Montana agriculture accounted for 12 percent of total jobs in 1970 and dropped to 5 percent by 1997. An increase in the number and share of retail trade and service jobs has helped to offset this decline. Retail trade and service sector jobs have grown from 60 percent of all jobs in 1970 to 76 percent in 1997.

Dramatic changes also occurred in the composition of the state's labor force. Montana women accounted for 35 percent of employed workers in 1970 and 50 percent by 1997. The occupational mix has changed, with fewer jobs for people working with their hands and more jobs for people with "people skills." The average workweek in Montana is 33 hours per week, slightly lower than the U.S. rate, reflecting a high number of part-time jobholders in the state.

And one of the most notorious changes from 1970 to 1997 was the state's drop in per capita income rankings. In 1970, Montana was ranked 34th by per capita income, and then dropped to 46th by 1997. These dramatic changes are best understood in terms of recent stages of economic growth in the Montana economy.

I. Growth and Expansion—1950s-1970s:

During this period, the state's basic industries were driving jobs and wages. Real wages and salaries were high and keeping pace with national growth in worker earnings.

II. Recession and Readjustment—1980s:

The 1980s saw major declines in labor demand and a phasing out in dominant, basic industry sectors. Permanent losses of high wage jobs and significant deterioration of workers' earnings occurred during this period.

III. Recovery and Transformation—1990s:

During the 1990s, employment has continued to shift away from traditional, basic industry to retail trade and service sector jobs. There has been a slight recovery of real earnings in some sectors, but the state continues to lag behind the nation in real earnings per worker.

Wages and Labor Earnings

Montana's job growth rates and real earnings per worker have varied greatly during the past 30 years as shown in Figures 2 and 3. Using a national economic benchmark, it is clear that during the 1970s, Montana's job growth and earnings were strong and above U.S. rates. Montana lost significant ground during the 1980s when there was negative growth in both jobs and real labor earnings.

Real growth in labor earnings switched back to positive rates during the 1990s when Montana experienced positive growth in both jobs and labor earnings. The state's strong economic performance during the 1990s, however, was not strong enough to recover ground lost in the 1980s (Figure 3).

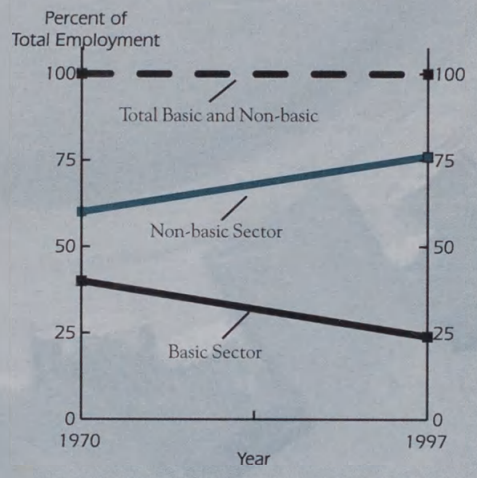
Average wage levels in Montana vary quite a bit, from $7.82 in retail to $10.78 in services and $13.95 in manufacturing to $18.00 in mining. The average 1997 nonfarm wage rate is $11.39 per hour.

High wage sectors—like mining and manufacturing—employ low proportions of Montana's work force. In fact, much of the growth during the 1990s has been in retail trade and services, sectors with lower wage jobs. Of the estimated 7,000 new jobs in the Montana economy in 1997, about 60 percent paid $9.00 per hour or less.

Non-wage benefits, such as health insurance and participation in a retirement plan, are also lower in Montana's growing job sectors. While data is unavailable at the state level, national data show that 49 percent of service sector workers and 38 percent of retail trade workers throughout the nation are covered by an employer health plan, compared to 80 percent in manufacturing. Employee participation rates in pension or other retirement plans range from 35 percent in services and 25 percent in retail trade to 64 percent in manufacturing.

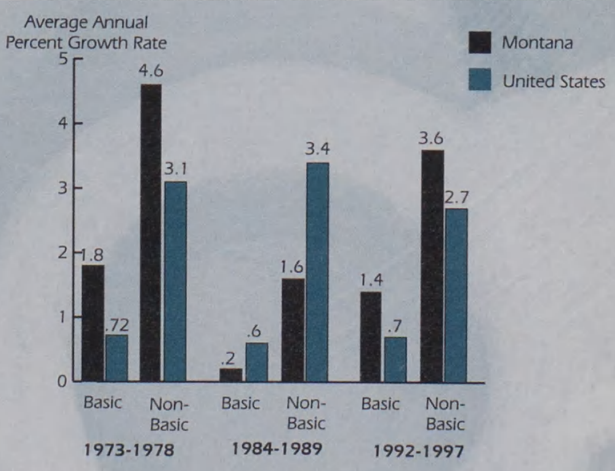
Wages and salaries per worker are the most important piece of the per capita income puzzle since earnings per worker account for 60 percent of Montana's personal income. Montana's highest ranking of per capita income was in 1948 when the state ranked 10th. This period, during the post-World War II boom, saw tremendous growth and prosperity in Montana agriculture and other sectors. Montana is currently in the 46th position, despite an average annual growth rate of 1 percent per year (equal to the national growth rate) in real, per capita income during the 1990s. We have not begun to catch up to the rest of the nation. To recapture our 1970 ranking of 34th, we would need a $2,900 increase in per capita income or average annual growth equal to four times the national rate for five years straight.

Figure 1
Basic (Export) and Non-Basic Sector Shares of Montana Employment



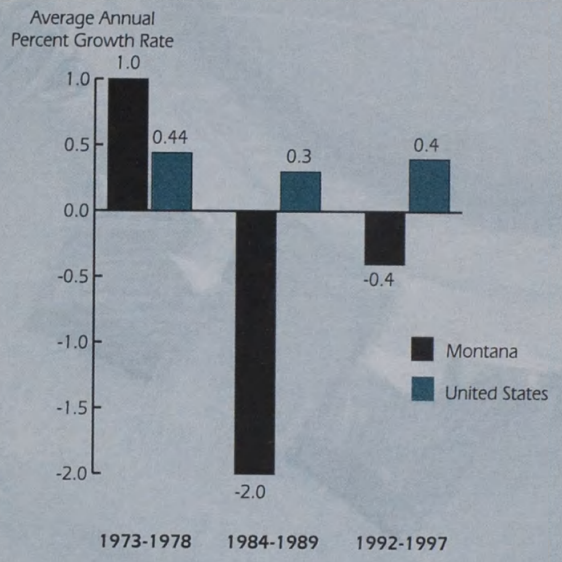
Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Montana & U.S. Job Growth Rates



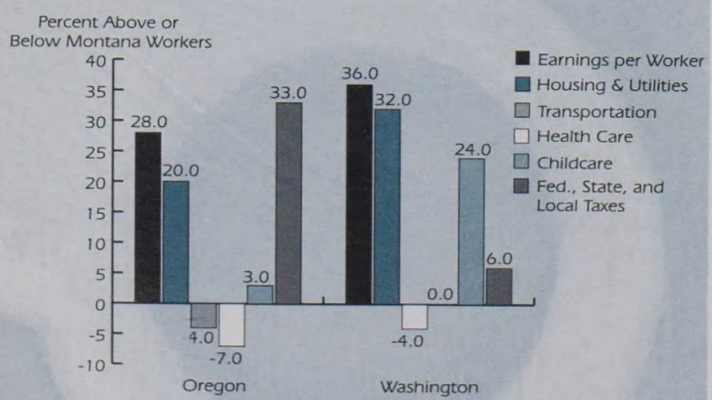
Source: U.S. Department of Commerce.

Figure 3
Montana and U.S. Growth Rate in Earnings per Worker (Inflation-adjusted 1997=100)



Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 4
Worker Earnings, 1996, and Cost of Living for Oregon and Washington Workers Compared to Montana Workers



Source: Northwest Policy Center, University of Washington.

Cost of Living

Lower wages and labor earnings in Montana does not directly translate into a lower cost of living for Montana workers. Anecdotal evidence on housing costs in Montana's urban areas suggests that housing prices are not significantly lower than higher wage regions on the West Coast or in the Midwest. It is difficult, however, to come up with direct price comparisons between Montana and other regions.

Recent data collected by the Northwest Policy Center at the University of Washington can be used to make direct comparisons between Montana and other Pacific Northwest states.

Montana workers are not getting a break on their cost of living just because their average wage is lower.

The Northwest Policy Center developed budget studies for different sized households in order to determine the wages necessary to maintain an adequate low-middle to middle income standard of living. The center then compared household budget costs for Montana, Oregon, and Washington. Budget costs were based on households comprising two working adults, a toddler, and a school-age child. Expenses included food, housing and utilities, transportation, health care, childcare, and state/local/federal taxes. The findings are as follows.

As shown in Figure 4, average earnings per worker were 28 percent higher in Oregon than in Montana. The Oregon worker's housing/utility costs were 20 percent higher than the Montana worker, while transportation and health care were 4 percent and 7 percent lower. Childcare was slightly higher in Oregon (3 percent) and taxes for the family of four were 33 percent higher in Oregon.

Comparisons of Montana and Washington showed a similar pattern. The average worker earns more in Washington, spends more in some categories and less in other categories, compared to the average Montana worker. One major point stands out within this interstate comparison. Although workers in Oregon and Washington earn considerably more than their Montana counterparts, they actually face lower costs of living in some categories such as transportation and health care. Furthermore, some household costs such as childcare are not much more costly or expensive in those higher wage states. What's the bottom line? Montana workers are not getting a break on their cost of living just because their average wage is lower.

Why Haven't We Caught Up?

There are a number of factors that contribute to Montana's low wages and per capita income compared to other regions. Montana's rural character with its lack of major urban markets is one factor. Larger urban economies (+500,000 population) have

opportunities and advantages due to the geographic concentration of manufacturing, high tech, and information industries. Such locational economies tend to be self-reinforcing, attracting new employers and industries that are often a source of innovation and new products.

There is some evidence that Montana workers accept slightly lower wages in order to enjoy the state's environment and a more relaxed lifestyle. Acceptance of lower wages appears to be especially true for workers in occupations with higher education and skill requirements (Figure 5). Obviously, this factor alone does not fully explain the below average wages and earnings which predominate in almost every job sector within the state economy.

Another factor is that the state's economy has a small employer base with very few large, home-based company headquarters and high-end management and white-collar jobs. An absence of large, Montana-based companies in manufacturing, services, and retail trade also detracts from wage levels in the state's labor markets.

Taxes

There are some concerns that Montana's taxes may be the major source of low-wage jobs because they provide a disincentive to new employers considering location in the state. Studies of employers' location decisions suggest that while taxes—particularly business taxes—may play a role in location choice, they are secondary to more fundamental cost factors such as labor costs, utility/energy costs, and transportation costs.

One recent Federal Reserve Bank study of state tax levels on per capita income growth shows that Montana's tax structure had a very low impact (.07 percent) on the state's per capita income growth relative to other states. Tax data for other states, compiled by Professor Douglas Young at Montana State University, shows that Montana ranks very low by total taxes paid per capita (42^{nd})and by taxes per acre on agricultural real estate (45^{th}). There may very well be some imbalances in Montana's tax system, specifically the state's heavy reliance on property taxes. But these important concerns are more a matter of tax policy and tax reform of the entire state/local tax structure than a matter of economic development.

Potential Directions for Work and Pay

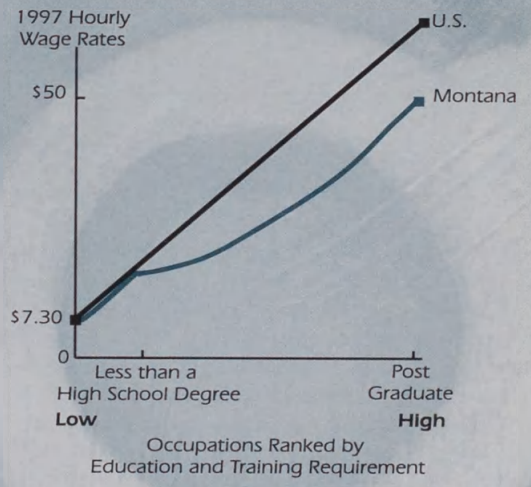
What can we do about the work and pay situation in Montana? Again, there is no silver bullet, no easy solution. Several potential directions for Montana include:

- Recruiting small to medium, above average wage employers that are currently located in high cost states and regions;
- Promoting the state's production and labor costs to firms with national markets;
- Using information-based technology for higher value-added production;
- Maintaining and improving Montana's human capital endowment of a skilled and educated labor force.

Montana residents can still expect selected opportunities for high-wage jobs in the traditional basic sectors, but on a limited basis. One project that is in the works—the Venture Star space shuttle project—could provide more than 600 high paying jobs for Montana. Several small scale, high-wage mining projects in South Central Montana also look promising.

Montanans need to pursue new opportunities in order to improve low wage and low per capita income rankings, but not at the expense of the state's regional character. Re-creating Montana's economy in the image of other states is not the right direction. Instead, Montana needs to build from its own economic strengths and unique characteristics.❑

Figure 5
Montana & U.S. Wages by Occupation



Source: Montana Department of Labor & Industry, U.S. Department of Labor.

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Northwest Policy Center, *Searching for Work that Pays,* January 1999. Seattle: University of Washington.

Becsi, Zsolt, "Do State and Local Taxes Affect Relative State Growth?" *Economic Review*, Federal Reserve Bank of Atlanta, vol. 81 (March/April 1996), pp. 18-36.

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Montana Economy Still Strong Despite Asian Flu Crises

by Paul E. Polzin

What a difference a year makes. In early 1998, the subject of conversation was globalization and how international conditions were ripe for Montana entrepreneurs to pursue faraway markets. That was just before the Asian Flu hit. This year, international conditions have not been especially conducive for doing business.

While financial crises have sent many countries into an economic tailspin, they have not had a significant impact on Montana's overall economy. In fact, 1998 was one of the highest growth years of the 1990s. However, certain Montana businesses and industries have felt the impacts of the Asian crises.

Globalization certainly provides unique opportunities for Montana business. But as recently evidenced by the state's wood products and manufacturing industries, reliance on world markets makes Montanans more vulnerable to the ups and downs in other parts of the world. Slow growth in international economies translates into reduced demand for products and softer markets. In Montana, there have been a few mill closures and job layoffs that can be directly traced to the Asian crises.

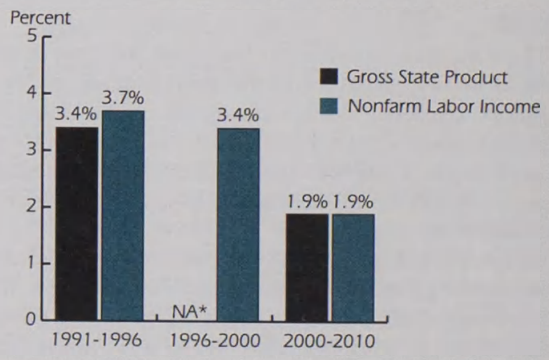
This situation is only temporary, though. In the long run, growing worldwide markets provide valuable customers for Montana's food and natural resource products.

From Sniffles to the Flu

In Southeast Asia, a series of "liquidity crises" turned sniffles into a full-fledged case of the flu, which eventually spread to Japan, Russia, and Brazil. The crises started when economic conditions caused borrowers throughout these regions to default on their loans. Borrowers defaulted for a variety of reasons including:

1. **Crony capitalism**. In areas such as Southeast Asia, loans were based on political considerations, regardless of credit risks.
2. **Loans secured by assets which declined in value**. In Japan, for example, loans were secured by stock market and real estate assets, which plummeted as the Japanese economy slowed.
3. **Governments defaulting on loans.** Russia is the best example. Obtaining revenue of any kind—domestic or foreign—has been difficult for the Russian government. The lack of hard currency may also prevent some Russian banks from paying back loans to foreign lenders. Hard currency also seems to be an issue in Brazil.

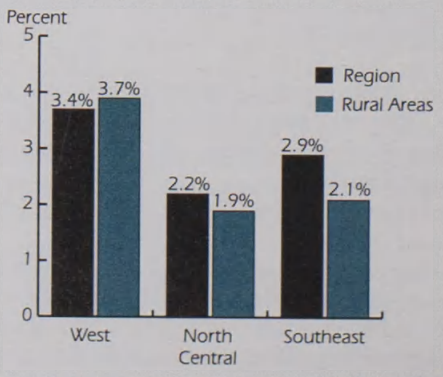
Figure 1
Gross State Product and Nonfarm Labor Income Annual Growth, Montana, 1991-2010



*Gross state product forecast not available

Source: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 2
Projected Nonfarm Labor Income, Annual Growth, Montana Multi-County Regions, 1999-2002



Source: Bureau of Business and Economic Research, The University of Montana-Missoula.

As a result of these bad loans, lenders have become stricter, making it difficult for legitimate businesses to get capital.

And how do loan defaults in far off regions affect businesses in Helena, Billings, or Miles City? Because of restrictive loan standards, some of our international customers can't get loans. Consequently, they buy fewer Montana products.

The Remedy

To remedy this economic situation, the central banks in the United States and other superpower countries have implemented a two-pronged strategy. First, they are trying to boost their own domestic economies to counterbalance the drop in the demand for exports. For example, the Federal Reserve has lowered interest rates, and the countries of the EU have followed suit.

Secondly, the IMF is trying to construct bailout packages and reforms for the countries most at risk. This is an attempt to bolster lender confidence and maintain loan volumes. Much of the last year has been a seesaw between spreading liquidity crises and government attempts to counter them.

It is important to keep the big picture in mind, though. This is not a U.S. financial crisis; it is a foreign financial crisis that is being translated into decreased exports for the United States. And exports have become increasingly important to the U.S. economy.

Recession of Not?

At the height of the crises last fall, the national economic forecasting firm WEFA predicted a 35 percent probability of a U.S. recession in the next 12 months. Most recently, WEFA has dropped this probability to 25 percent. That means WEFA thinks the various world governments will succeed in their economic policies, and serious recessions will be avoided. But, this is by no means a sure thing.

Right now, the most likely recession scenario involves continued declines in exports combined with something that reduces domestic spending—like a major and sustained U.S. stock market crash. Such a crash would undermine U.S. consumer confidence and decrease domestic spending at the same time exports are also falling.

Gloomy scenarios aside, the forecast for the U.S. economy is actually fairly cheery. Overall, the U.S. economy posted strong growth of 3.7 percent in 1998 and is expected to grow at about 2 percent through 2000 (Figure 1).

Montana Forecast

Mirroring national trends, Montana can expect steady but slower growth as we enter the new millenium. 1998 turned out to be an unexpectedly strong year for Montana, despite worldwide financial disasters. To analyze Montana's current economic trends, we need to look at income, population, and employment growth. The state's income has increased faster than expected, while population has remained stable, and employment growth has slowed.

Income

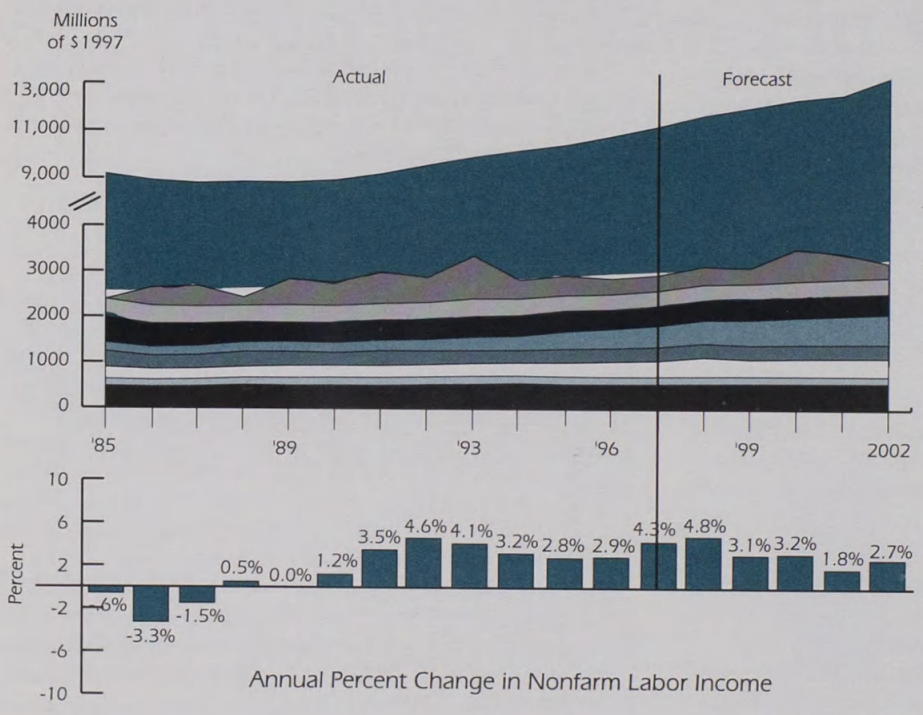
Nonfarm labor income rose 4.8 percent in 1998, with about 0.5 percent due to a one-time wage settlement to the workers at Columbia Falls Aluminum Company (Figure 3). Excluding this one-time influence, the remaining 4.3 percent increase is still the state's largest since the early 1990s.

Table 1
Population, Montana and BEA Regions, 1990-2010

	Thousands of Persons				Average Annual Percent Change		
	Actual		Projected				
	1990	1998	2000	2010	1990-1998	1998-2000	2000-2010
Montana	799	881	901	984	1.2%	1.2%	1.1%
West	334	385	397	450	1.8%	1.4%	1.3%
Missoula	79	89	92	105	1.5%	1.7%	1.3%
Flathead	59	72	76	90	2.4%	2.6%	1.7%
Butte-Anaconda	44	45	43	42	0.1%	-1.8%	-0.3%
Lewis & Clark	47	54	56	64	1.5%	1.7%	1.4%
Ravalli	25	35	37	46	4.3%	2.7%	2.1%
Rest of West	79	91	93	103	1.7%	1.1%	1.0%
North Central	156	157	159	157	0.1%	0.5%	-0.1%
Cascade	78	79	80	80	0.2%	0.3%	0.0%
Rest of North	78	78	80	77	0.0%	0.8%	-0.3%
Central	309	338	345	377	1.1%	1.0%	0.9%
Southeast	113	126	130	145	1.3%	1.5%	1.1%
Yellowstone	50	63	64	74	2.7%	1.2%	1.4%
Gallatin	12	12	12	12	0.4%	0.2%	0.3%
Custer	11	10	10	11	-0.7%	0.4%	0.3%
Richland	123	127	129	135	0.4%	0.6%	0.5%

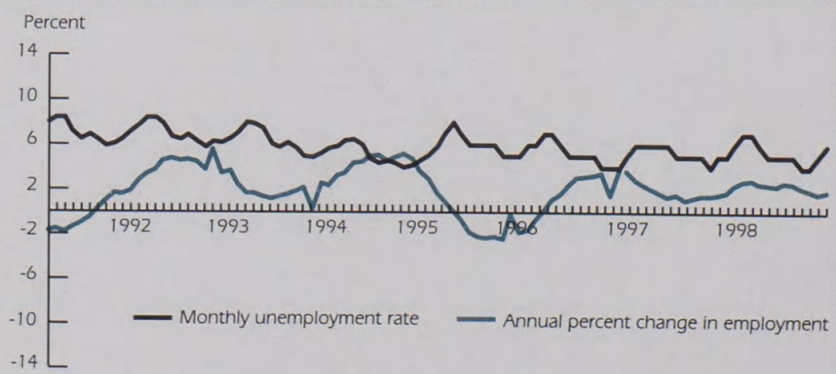
Source: Bureau of the Census, U.S. Department of Commerce, and the Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 3
Nonfarm Labor Income and Labor Income in Basic Industries, Montana, 1985-2002



	1997	2002
Nonfarm labor income	**$11,254**	**$13,130**
Basic labor income	**$2,935**	**$3,218**
Agriculture	$338	$315
Wood & paper products	$337	$354
Railroad	$429	$452
Nonresident travel	$468	$661
Mining	$303	$309
Selected manufacturing	$349	$399
Military	$166	$155
Federal government	$545	$573

Figure 4
Monthly Unemployment Rate and Change in Monthly Employment in Montana
January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Population

Montana's population has remained stable at about 880,000 people during 1997 and 1998. Net outmigration has replaced the sizable influx of persons during the first half of the 1990s. The population forecast for 2000 has been trimmed to 900,000 (down from 920,000) and to 984,000 (down from 1,015,000) in 2010 (Table 1). Preliminary reports suggest that Montana will regain its second congressional seat in 2000.

Employment Growth

Montana's employment growth is modest and the unemployment rate continues to slowly decline (Figure 4). Labor shortages are not affecting Montana to the same degree as elsewhere in the nation. Even so, there are some indications of tightening labor markets throughout the state. Employers seem to be recruiting and hiring more aggressively, and existing employees are working longer hours per week.

Regional Differences

In Montana—an immense, but sparsely populated state—economic performance varies greatly by region. For example, Western and Southeastern Montana will grow at a much faster rate than North Central Montana.

Western Montana (the Missoula trade and service area) will experience the fastest income and population growth. Nonfarm labor income will rise an average of 3.4 percent from 1999 to 2001, while population will grow about 1.3 percent per year between 2000 and 2010. Southeastern Montana (the Billings trade and service area) will see income increase about 2.9 percent per year from 1999 to 2001, and population will rise about 0.9 percent per year from 2000 to 2010.

North Central Montana (the Great Falls trade and service area) will grow the slowest, primarily because of its dependence on agriculture. Productivity increases on farms and ranches have stabilized or even reduced labor requirements. These changes have caused economic strife throughout local economies.

Another reason for North Central Montana's slow growth is the fact that it lacks major urban areas, and therefore benefits less from fast-growing business and personal service sectors, which tend to locate in population centers. In this region, nonfarm labor income will rise about 2.2 percent per year from 1999 to 2001, while population will increase about 0.8 percent between 2000 and 2010. (See pages 10-18 for a detailed analyses of major counties in these regions.)

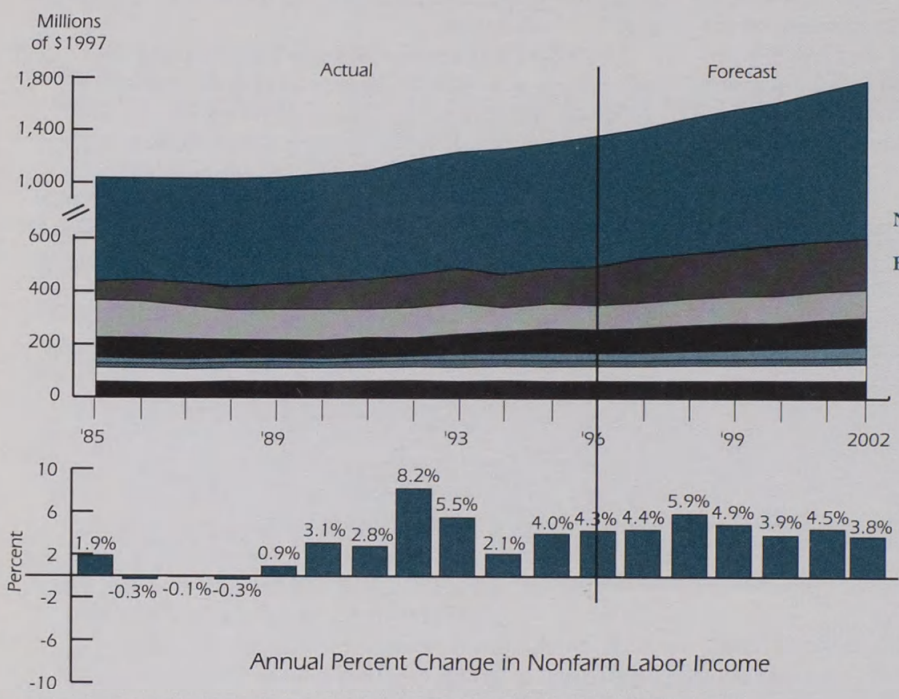
Stable employment in most basic industries, strong construction, and continued growth in services will be the major contributors to the state's future growth.

Outlook

The forecast is for Montana's growth to average about 3 percent from 1999 to 2001, down from 1998's growth, but well above the 2 percent average growth predicted for the first decade of the new millenium. Stable employment in most basic industries, strong construction, and continued growth in services will be the major contributors to the state's future growth.

The most important reasons for upward revisions in the state's short-term outlook are stronger than expected construction activity and faster than expected growth in the service sectors.

Nonfarm Labor Income and Labor Income in Basic Industries, Missoula County, 1985-2002



	1997	2002
Nonfarm labor income	**$1,455**	**$1,821**
Basic labor income	**$529**	**$605**
Trade center activity	$169	$192
Wood & paper products	$96	$107
Transportation	$94	$109
Nonresident travel	$28	$42
Other basic	$22	$24
University of Montana	$56	$62
Federal government	$65	$69

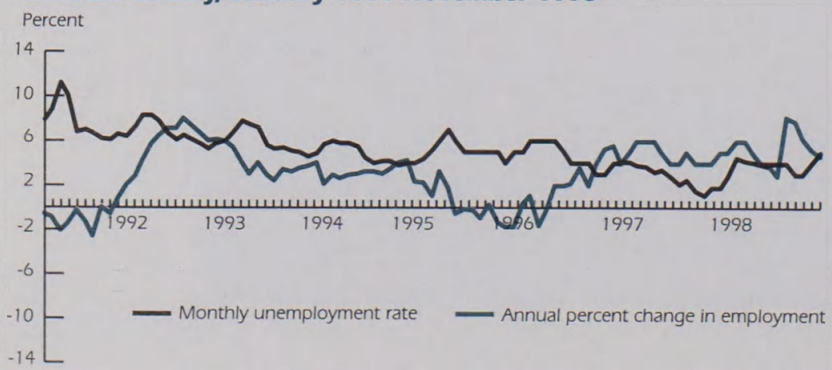
Missoula County

Missoula continues as the state's second largest trade and service center, next to Billings, serving rapidly-growing Western Montana. Retail trade and services, those sectors most closely linked with regional activity, have been leading the growth. Manufacturing remains steady. Overall growth has cooled from the early 1990s, but remains above the state average. Employment growth in 1998 was strong. Missoula County was recently designated as the state's third Metropolitan Statistical Area, along with Billings and Great Falls, increasing Missoula's national visibility.

Per Capita Income, 1996, Selected Counties

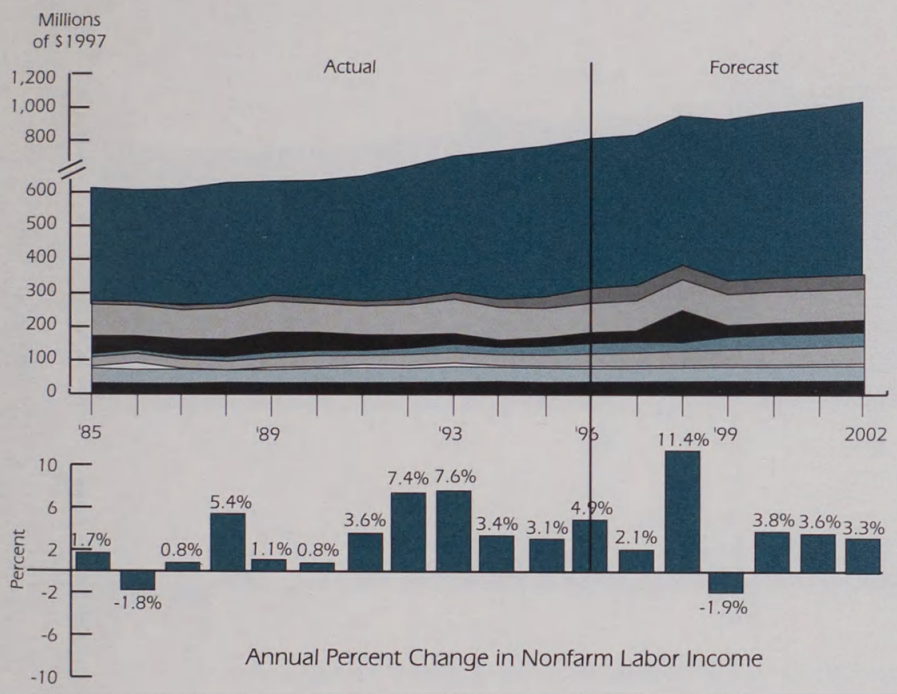
	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Missoula	$21,600	110%	16	15	6
Ravalli	$16,900	86%	43	36	30
Lake	$16,500	84%	52	38	35
Sanders	$14,400	73%	49	50	46
Mineral	$13,300	68%	51	52	52

Monthly Unemployment Rate and Change in Monthly Employment in Missoula County, January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Flathead County, 1985-2002



Annual Percent Change in Nonfarm Labor Income

	1997	2002
Nonfarm labor income	**$962**	**$1,168**
Basic labor income	**$325**	**$357**
Selected manufacturing	$46	$43
Wood products	$90	$93
Primary metals	$33	$36
Trade center activity	$32	$41
Nonresident travel	$39	$52
Agriculture & other	$57	$58
Transportation	$40	$43
Federal government	$38	$42

Per Capita Income, 1996, Selected Counties

	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Flathead	$20,400	104%	12	14	11
Lincoln	$14,500	74%	46	43	44
Glacier	$13,900	71%	13	54	49

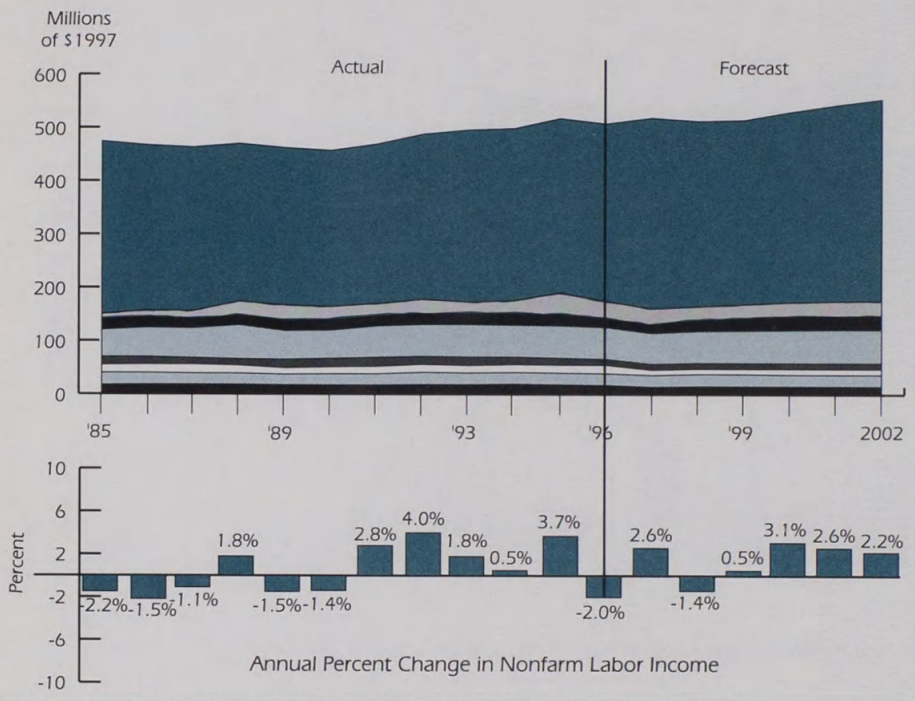
Monthly Unemployment Rate and Change in Monthly Employment in Flathead County, January 1991-November 1998

Flathead County

In the 1990s, Flathead County experienced rapid and volatile growth, and 1998 was no exception. The 11 percent increase in 1998 and the 2.0 percent decline in 1999 reflect the CFAC wage settlement. Growth exceeded 6 percent in 1992 and 1993. The intervening years posted figures of 2.9 to 4.4 percent—still much higher than most other areas of the state. Growth is projected to slow, but the volatility may cause yearly figures to be far above or below this average. Unemployment has traditionally been high in Flathead County. Accelerated employment growth in mid-1998 may reflect the CFAC lawsuit settlement, but these preliminary numbers may be revised downward.

Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Butte-Silver Bow and Anaconda-Deer Lodge Counties, 1985-2002



	1997	2002
Nonfarm labor income	**$508**	**$544**
Basic labor income	**$150**	**$166**
Mining	$30	$28
Selected manufacturing	$16	$26
Utility HQ & related	$58	$63
Other basic	$11	$11
Nonresident travel	$10	$11
Education & institutions	$11	$12
Federal government	$14	$15

Butte-Silver Bow and Anaconda-Deer Lodge Counties

1997 labor income growth was less than expected due to the construction phase of Butte's Advanced Silicon plant. The production work force is smaller than the construction work force, leading to the 1998 decline. Currently, plant production is less than capacity, and the planned expansion is on hold due to worldwide economic conditions. Employment growth was volatile in 1998, but overall remained strong.

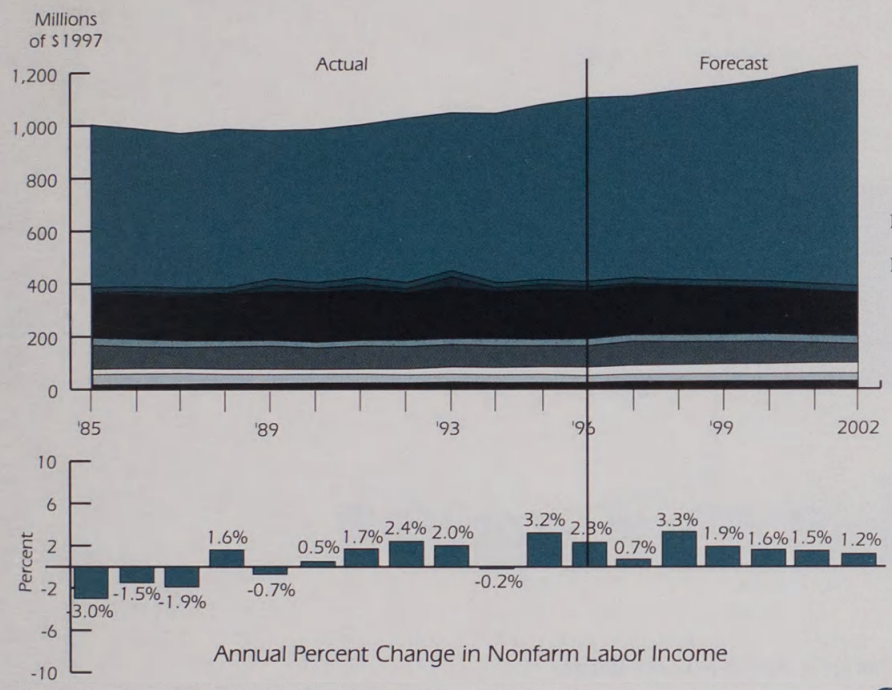
Per Capita Income, 1996, Selected Counties

	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Silver Bow	$19,900	101%	14	17	13
Deer Lodge	$15,900	81%	42	45	39
Beaverhead	$17,800	90%	35	25	26
Granite	$16,200	82%	32	29	38

Monthly Unemployment Rate and Change in Monthly Employment in Butte-Silver Bow and Anaconda-Deer Lodge Counties, January 1991-November 1998

Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Cascade County, 1985-2002



	1997	2002
Nonfarm labor income	**$984**	**$1,213**
Basic labor income	**$421**	**$390**
Nonresident travel	$22	$26
Agriculture	$10	$6
Malmstrom	$183	$158
Selected manufacturing	$26	$20
Trade center activity	$90	$71
Education & other	$34	$41
Transportation	$27	$28
Federal government	$28	$30

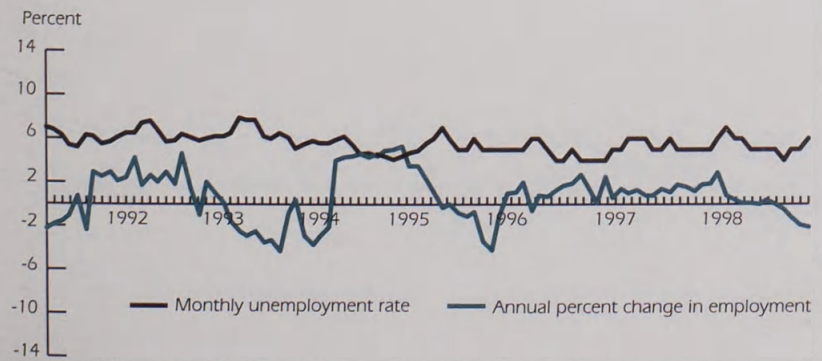
Cascade County

Slow growth in Cascade County reflects conditions in its trade and service area. Great Falls serves as the trade and service center for Northeast Montana, the region most dependent on agriculture. Productivity increases on farms and ranches have stabilized or even reduced labor requirements. The new pasta plant and increased tourism associated with the Lewis and Clark Interpretive Center may counter the decline in health care (perhaps associated with hospital consolidation) and in other service sectors. Despite the slow growth, per capita income in Cascade County continues to rank with the other major urban areas, among the highest in the state.

Per Capita Income, 1996, Selected Counties

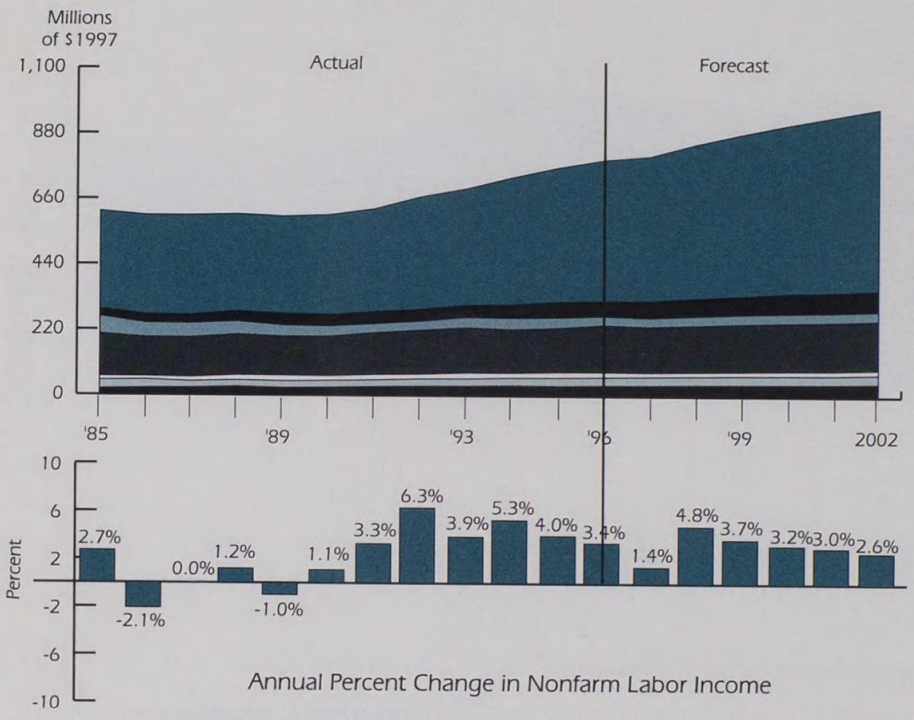
	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Cascade	$21,500	109%	8	6	7
Choteau	$23,000	117%	40	2	3
Teton	$20,200	103%	33	5	12
Fergus	$18,000	91%	22	19	22

Monthly Unemployment Rate and Change in Monthly Employment in Cascade County January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Lewis & Clark County, 1985-2002



	1997	2002
Nonfarm labor income	**$876**	**$1,038**
Total Basic	**$390**	**$427**
Trade center activity	$56	$69
Transportation & utilities	$31	$33
State government	$153	$164
Agriculture & other	$15	$17
Selected manufacturing	$29	$31
Education	$37	$44
Federal government	$69	$69

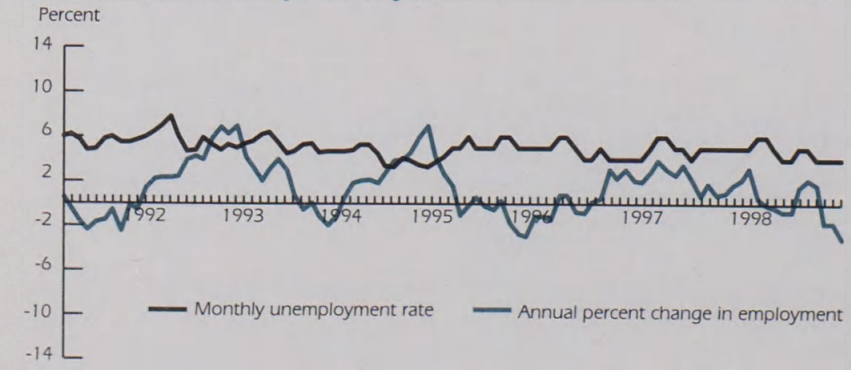
Lewis and Clark County

Helena has experienced slow growth in employment and population, but moderate increases in income. The preliminary monthly data suggests 1998 was weak, with little or no increase in employment. Helena's dependence on state and federal governments will continue to be the major determinant of future trends. Income will continue to rise faster than employment and population.

Per Capita Income, 1996, Selected Counties

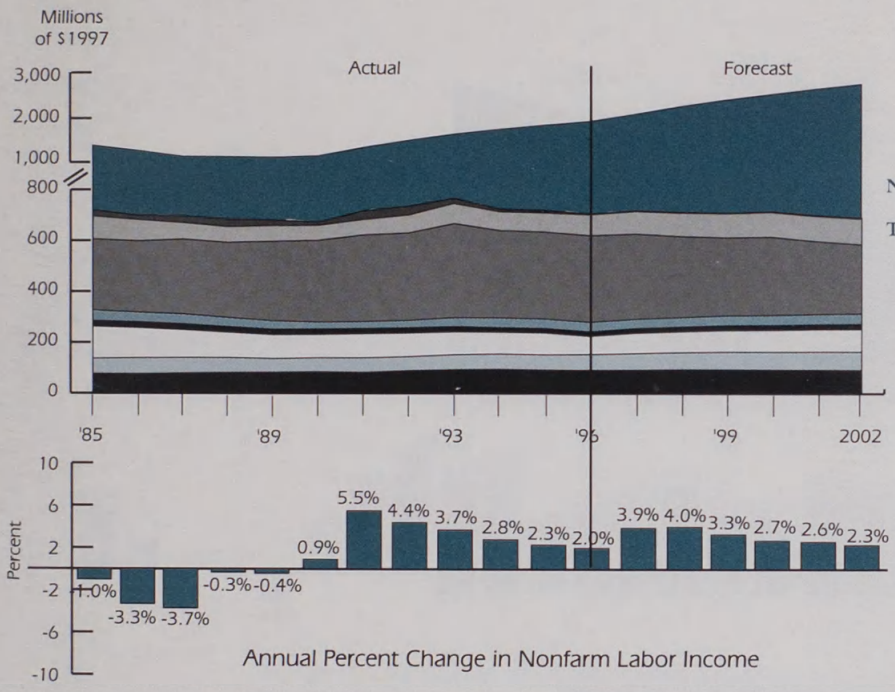
	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Lewis & Clark	$21,800	111%	6	8	5
Jefferson	$20,700	105%	17	7	10
Broadwater	$16,700	85%	44	37	34
Meagher	$16,900	86%	48	22	29
Powell	$15,100	77%	41	40	41

Monthly Unemployment Rate and Change in Monthly Employment in Lewis & Clark County, January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Yellowstone County, 1985-2002



	1997	2002
Nonfarm labor income	**$2,052**	**$2,375**
Total basic	**$715**	**$689**
Agriculture & mining	$2	$3
Oil & gas (including refining)	$89	$101
Trade center activity	$334	$271
Nonresident travel	$36	$41
Higher education	$18	$20
Transportation	$80	$89
Selected manufacturing	$65	$72
Federal government	$92	$92

Yellowstone County

In Yellowstone County, Billings continues as Montana's major trade and service center. But there may be storm clouds on the horizon. Yellowstone County's wholesale trade and health care industries have lost some of their luster, and total trade center labor income is forecast to decrease between 1999 and 2002. Employment growth continued throughout 1998.

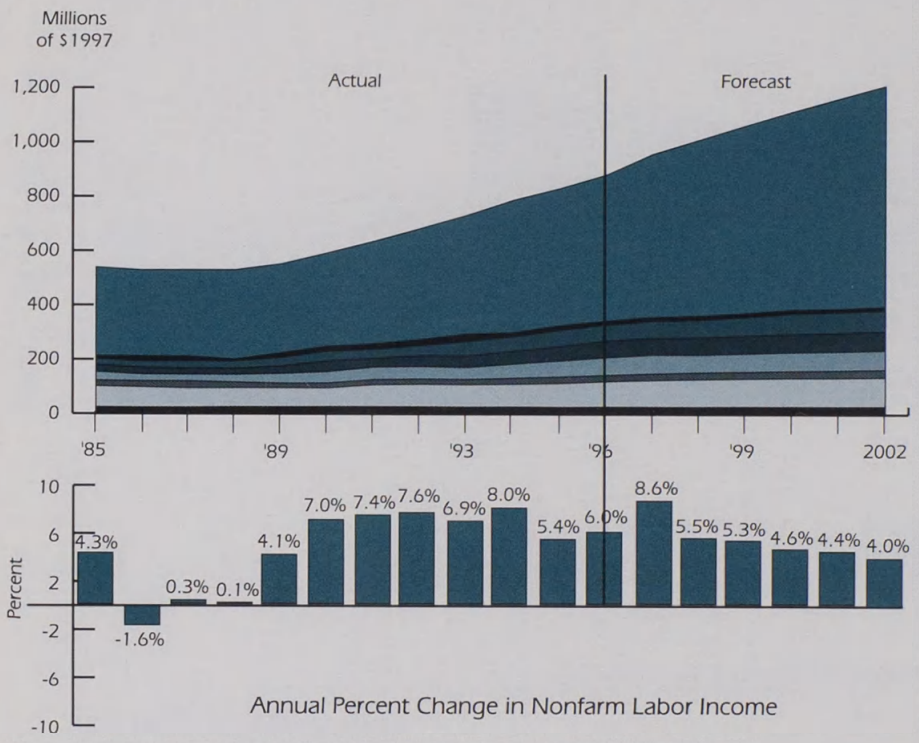
Per Capita Income, 1996, Selected Counties

	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Yellowstone	$21,400	115%	2	4	4
Park	$18,000	91%	19	41	23
Madison	$15,400	78%	39	39	40
Sweet Grass	$17,800	90%	20	21	25

Monthly Unemployment Rate and Change in Monthly Employment in Yellowstone County, January 1991-November 1998

Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Gallatin County, 1985-2002



	1997	2002
Nonfarm labor income	**$958**	**$1,209**
Total Basic	**$358**	**$396**
Agriculture	$14	$12
Trade center activity	$63	$75
Nonresident travel	$62	$70
Selected manufacturing	$69	$71
Mining, rail & other	$24	$28
Montana State University	$99	$108
Federal government	$27	$29

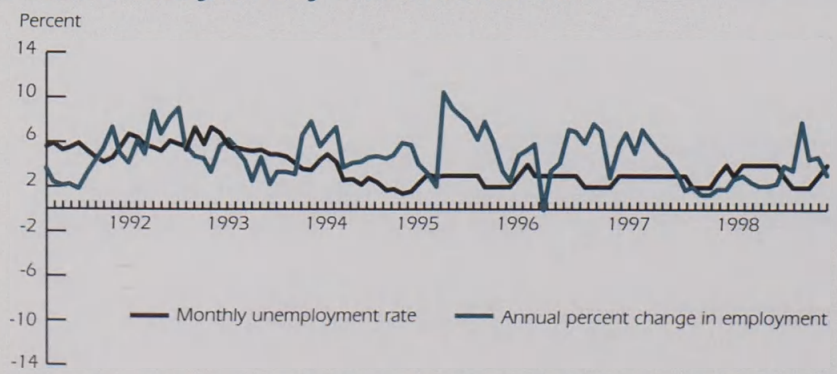
Gallatin County

The rapid growth in Gallatin County will moderate, but the Bozeman area will remain among the fastest growing communities in the state. A cooling of the construction boom will be a major cause of the deceleration. Unemployment rates in Gallatin County have been among the lowest of Montana's major cities, indicating a tight labor market and the potential for labor shortages. Employment growth continued in 1998.

Per Capita Income, 1996, Selected Counties

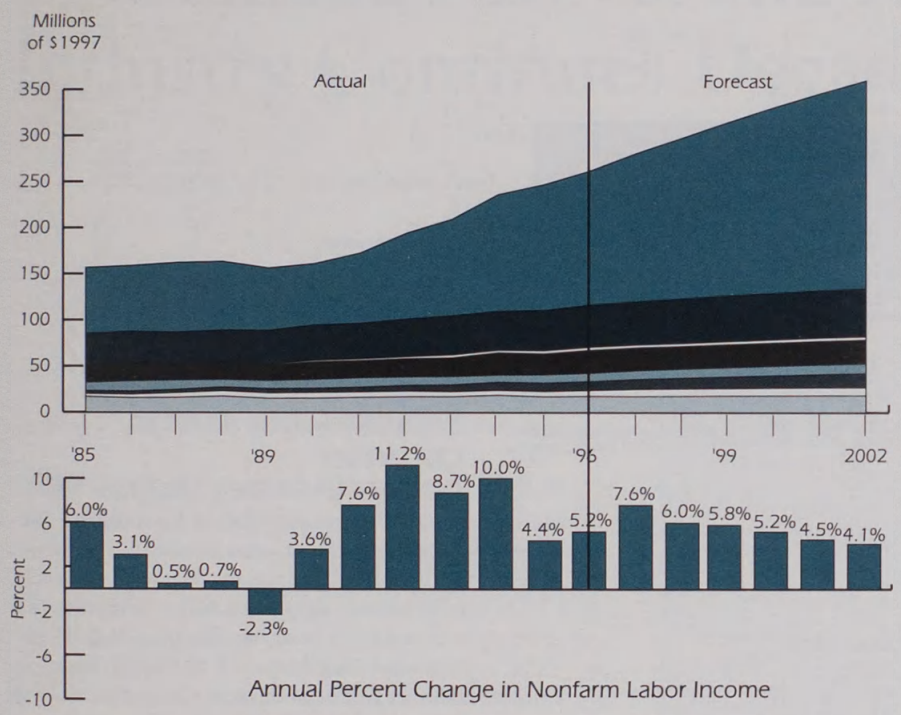
	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Gallatin	$21,400	109%	28	16	9
Park	$18,000	91%	91	41	23
Madison	$15,400	78%	39	39	40
Sweet Grass	$17,800	90%	20	21	25

Monthly Unemployment Rate and Change in Monthly Employment in Gallatin County, January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Ravalli County, 1985-2002



Annual Percent Change in Nonfarm Labor Income

	1997	2002
Nonfarm labor income	$279.4	$358.8
Total basic	$118.9	$133.3
Commuters	$46.5	$51.7
Nonresident travel	$3.4	$3.8
Agriculture	$-1.0	$-.09
Wood products	$24.6	$25.5
Trucking	$9.6	$10.8
Medical research	$10.7	$15.2
Other manufacturing	$7.8	$8.7
Federal government	$17.3	$18.5

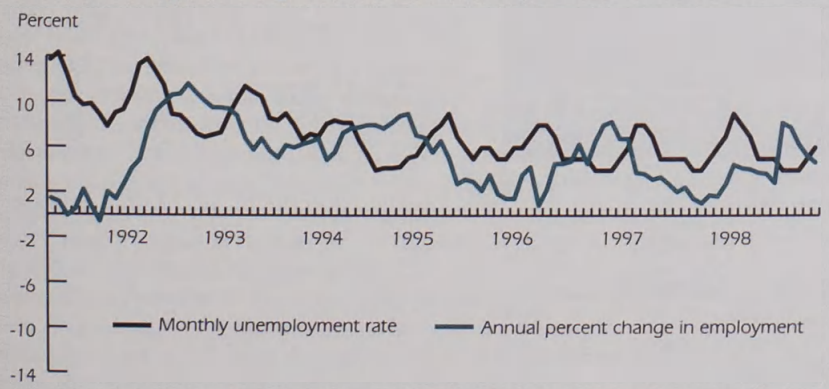
Ravalli County

Northern Ravalli County is part of the Missoula area economy, and commuters (those living in Ravalli County, but working in Missoula) are the largest component of the economic base. Wood products is the other major basic industry. Population growth will continue, but at slower rates. The rapid growth in the 1990s was accompanied by a modest rise in per capita income rank.

Per Capita Income, 1996, Selected Counties

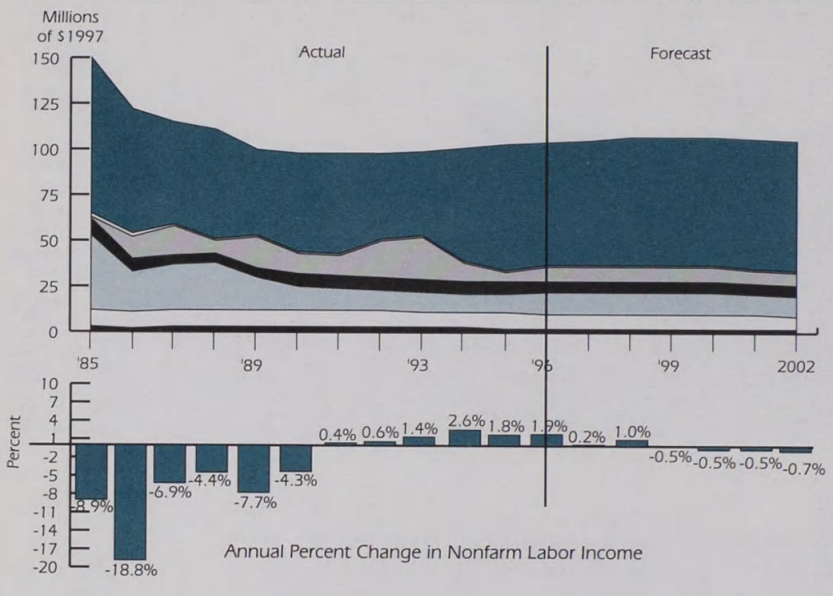
	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Missoula	$21,600	110%	16	15	6
Ravalli	$16,900	86%	43	36	30
Lake	$16,500	84%	52	38	35
Sanders	$14,400	73%	49	50	46
Mineral	$13,300	68%	51	52	52

Monthly Employment Rate and Change in Monthly Employment in Ravalli County, January 1991-November 1998



Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Nonfarm Labor Income and Labor Income in Basic Industries, Richland County, 1985-2002



	1997	2002
Nonfarm labor income	**$106**	**$105**
Total basic	**$37**	**$35**
Nonresident travel	$1	$1
Agriculture	$8	$7
Transportation	$6	$6
Oil & gas	$12	$11
Manufacturing	$8	$8
Federal government	$2	$2

Richland and Custer Counties

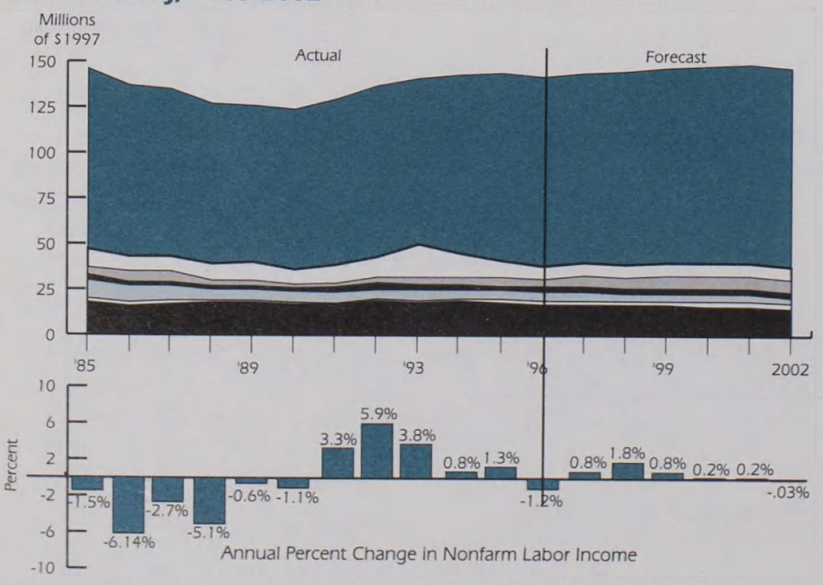
Richland and Custer counties have very different economies, despite having about the same population. Custer County is a regional trade center, with persons coming from nearby rural areas to shop, see a doctor or dentist, or conduct other business. The U.S. Veterans Administration hospital is the largest basic industry in Custer County. Oil and gas related firms continue to be the largest basic industry in Richland County, with manufacturing ranking second. Both counties experienced declines in the late 1980s, directly or indirectly associated with the "energy bust." During the 1990s, the basic industries stopped declining, and these counties' economies improved. Our forecasts call for stability to 2002.❑

Paul E. Polzin is director of the Bureau of Business and Economic Research at The University of Montana-Missoula.

Per Capita Income, 1996, Selected Counties

	1996 Per Capita Income		Rank		
County	Amount	Percent of Montana	1980	1990	1996
Custer	$19,100	99%	5	18	18
Richland	$17,800	92%	10	31	20
Dawson	$18,300	95%	7	33	19
McCone	$16,000	83%	37	48	36
Prairie	$16,900	88%	30	27	28
Roosevelt	$14,400	75%	47	55	43

Nonfarm Labor Income and Labor Income in Basic Industries, Custer County, 1985-2002



	1997	2002
Nonfarm labor income	**$138**	**$142**
Total basic	**$40**	**$38**
Agriculture & ag. services	$7	$7
Trade center activity	$6	$7
Nonresident travel	$3	$3
Transportation	$3	$3
Manufacturing	$7	$3
Federal government	$17	$15

Sources: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula; and Research and Analysis Bureau, Montana Department of Labor and Industry.

Montana's Travel and Recreation Industry Continues Decade of Growth

By Norma Polovitz Nickerson and Kim McMahon

Nonresident visitation in Montana increased in 1998 and continued on a growth trajectory that began nearly a decade ago. For the past several years, Montana's visitation trends have mirrored those nationwide. What does this mean for the future of nonresident travel in Montana? Travel statistics and indicators provide the most reliable clues for predicting future visitation.

1999 and Beyond: Montana, U.S.A.

Nonresident travel to Montana in 1998 grew to 9.2 million visitors, or 3.8 million visitor groups. These groups spent $1.5 billion and supported more than 28,000 direct jobs, personal income of $423 million, and proprietary income of $56.5 million. People in Montana primarily for vacation were responsible for approximately half of the nonresident expenditures ($750 million). The remaining portion of nonresident expenditures came from nonresidents in Montana for reasons such as business, medical, passing through, visiting friends and relatives, or shopping. While some of these nonresidents were also here for vacation, it was not the main reason they came to the state.

For the past four years, Montana's visitation rates have kept pace with U.S. rates (Table 1). Montana's 1998 overall visitation mirrored the national average of 4 percent, indicating that the state's nonresident visitor base is stabilizing or "leveling off" after nearly a decade of constant growth. Therefore, based on national averages, Montana should experience a 2 percent increase in overall visitation in 1999.

And, based on responses from a University of Montana Institute for Tourism and Recreation Research (ITRR) survey, the majority of Montana travel/recreation businesses and agencies agree that a 2 percent increase in nonresident visitation lies ahead in 1999. Thirty-four percent of the industry based this projection on the gradual increases they have experienced from year-to-year. Another 12 percent indicated that bookings for next year are higher than this time last year, and 10 percent predicted improved marketing will increase their visitation (Table 2). Of those businesses/agencies who predicted a decrease, the most common reason was a surplus of supply (especially for the lodging industry).

While Montana's visitation rates closely match U.S. rates, the state's Canadian visitation rates do not—fortunately. Canada-to-Montana vehicle crossings declined by only 1 percent in 1998, compared to a 7 percent decline nationwide. Apparently, the economic hardships of our Canadian neighbors are not affecting Montana as much as the rest of the nation. This is probably due to the fact that Albertans are the most frequent Montana visitors from the North and they are also the most economically stable province.

Table 1
U.S. and Montana Travel Forecast: 1999 and Beyond

	97/98	98/99	99/00	00/01
U.S. Resident Travel Forecast (% change)				
Total Persons - Trips	3.7%	1.6%	1.4%	1.7%
Travel Expenditures	6.4%	5.7%	5.0%	5.0%
International Travel Forecast to U.S.				
From Canada	-7.0%	-1.6%	4.0%	3.3%
From Overseas	-0.3%	2.9%	3.5%	4.0%
Nonresident Travel to Montana				
Total Visitation	4.0%	2.0%	2.0%	3.0%
Canadian Visitation	-1.0%	-1.0%	2.0%	3.0%

Table 2
ITRR Outlook Survey - Montana Travel and Recreation Industry*

	Change in 1997 compared to 1998		
	up	same	down
Travel/Recreation Industry	54%	23%	23%

Travel/recreation industry expectations for 1999 visitation change*

- 18 percent expect 1999 visitation to decrease from 1 to 5 percent
- 12 percent expect 1999 visitation to remain the same
- 48 percent expect 1999 visitation to increase 1 or 2 percent
- 22 percent expect 1999 visitation to increase 3 to 5 percent

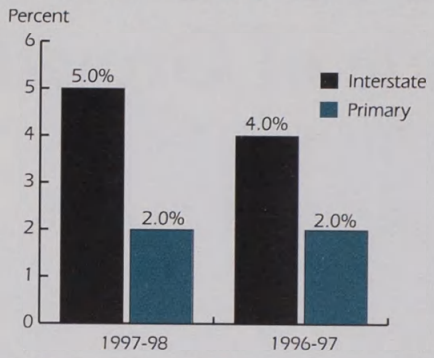
*Results from a survey of 92 travel and recreation businesses/agencies in Montana.

Table 3
1998 Travel and Recreation Percent Changes from 1997

	U.S.	Montana
National Park Visitation	+2.0%	-
National Park Visitation (MT region)	-1.3%	-
Yellowstone National Park	-	+8%
Glacier National Park	-	+7%
Airline Revenue Passenger Miles	+2.0%	+3%
Hotel Occupancy	-0.9%	+0.7%
Skier Visits	+3.0%	-11%

Sources: Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Figure 1
Montana Traffic Volume



Source: Montana Department of Transportation.

Table 4
Visitation Changes to Montana Attractions

	% change 97-98	Visitor numbers
Lewis and Clark Interpretive Center	100.0%*	80,000
Bighorn Canyon National Monument	+44.2%**	275,000
Yellowstone National Park	+8%	3,120,069
Glacier National Park	+7%	1,831,482
Bighole National Battlefield	+4.5%	44,192
Little Bighorn Battlefield	+2.5%	360,125
National Bison Range	-3.6%	189,200
Museum of the Rockies	-4.0%	120,000
Lewis and Clark Caverns	-7.0%	54,840
Grant Kohrs Ranch	-9.3%	25,803
Montana Historical Society	-14.5%	74,704

*Opened in 1998.
**Change in counting procedure.

Source: USDI National Park Service; Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Table 5
Montana Nonresident Travel by County

	% and Number Who Drove Through the County	% and Number Who Spent a Night in the County	% Who Drove Through and Spent a Night
Cascade	15% of state 570,000	7% of state 270,000	47%
Flathead	20% of state 750,000	15% of state 560,000	74%
Gallatin	46% of state 1,750,000	22% of state 850,000	48%
Lewis & Clark	16% of state 620,000	6% of state 220,000	35%
Missoula	41% of state 1,560,000	14% of state 550,000	35%
Silver Bow	40% of state 1,510,000	7% of state 270,000	18%
Yellowstone	38% of state 1,450,000	17% of state 630,000	43%

Source: Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Montana Visitation Trends

As with Canadian visitation to the state, Montana does not follow the regional travel and recreation trends in particular sectors of the industry. Specifically, national park visitation and skier visits are quite different from regional or national trends. However, there are logical explanations for the discrepancies.

National Parks

Visitation to Yellowstone and Glacier National Parks is the best indicator of overall visitation to Montana. Nearly 50 percent of all nonresidents to the state visit Yellowstone or Glacier as a primary reason for being in Montana. These two parks experienced healthy increases in 1998, especially compared to the decrease experienced overall in mountain region national parks (Table 3). Most of the regional decrease can be explained by the substantial decrease at Grand Canyon National Park. Many Pacific Rim visitors travel to the Grand Canyon each year, but visitation from those countries was down in 1998, probably due to the Asian economic crises.

Skier Visits

Skier visits in Montana declined 11 percent from the 1996-97 season, while increasing 3 percent nationwide. This discrepancy might be due to strange weather patterns during the winter of 1997-1998, which created inconsistent pockets of high snowfall. Unfortunately, these pockets were not located in Montana and lured ski enthusiasts elsewhere.

Major Attractions

Half of Montana's major attractions experienced visitation increases in 1998, while the other half had decreases. The Montana Historical Society usually has a decrease during the off-legislative years. However, decreases in the other attractions have no explanation. It is possible that the newly opened Lewis and Clark Interpretive Center in Great Falls diverted some of the market share to their area.

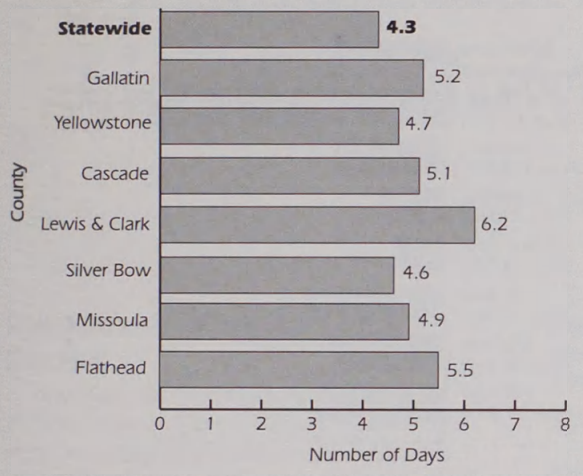
Traffic Patterns

Approximately 95 percent of Montana's nonresident travelers come to the state by private vehicles. Last year, interstate travel increased 5 percent and primary road use increased 2 percent, providing for an overall increase of 3.7 percent on Montana highways in 1998.

Montana Travel Statistics by County

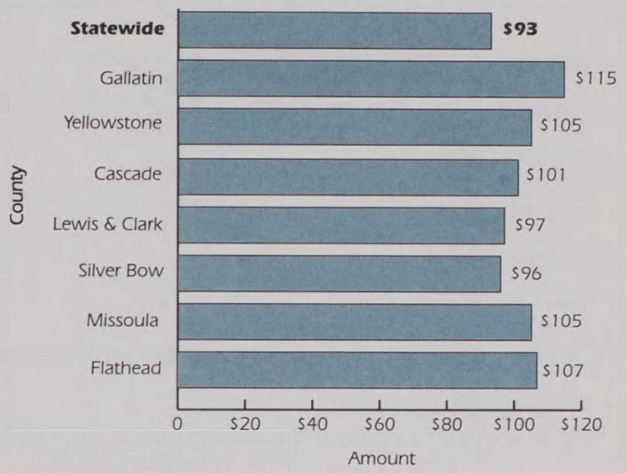
While statewide traveler information is useful to travel and recreation industry planners, county-level information is much more useful and applicable for regional marketing and planning efforts. County-level data tells us the number of visitors who travel through each county, how many spend time in each county and for how long, and how traveler spending patterns differ between counties. The seven most populated counties—Cascade, Flathead, Gallatin, Lewis and Clark, Missoula, Silver Bow, and Yellowstone—represent approximately 65 percent of all nonresident expenditures made in Montana. A look at visitor patterns throughout these seven counties provides considerable insight into Montana's travel and recreation industry.

Figure 2
Average Length of Stay in Montana*



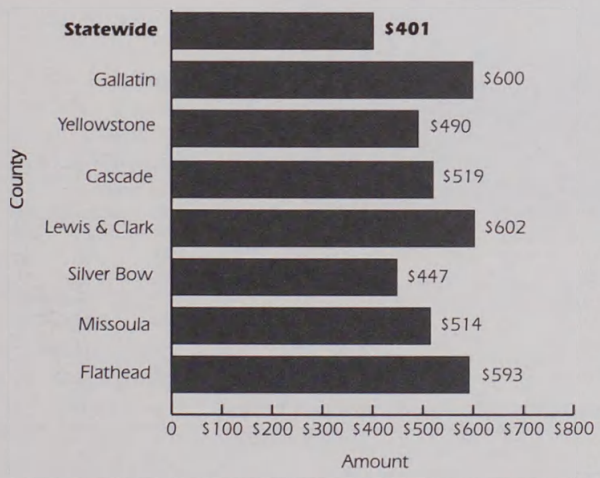
*Note: Length of stay is calculated using those who spent at least one night in that county.

Figure 3
Average Daily Spending While in Montana*



*Note: Average daily spending is calculated using those who spent at least one night in that county.

Figure 4
Average Trip Expenditures in Montana*



*Note: Average trip expenditures are calculated by using those who spent at least one night in that county.
Source: Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Which Counties "Capture" the Most Visitors?

According to ITRR data, Gallatin County led the pack in the number of Montana travelers who drove through the county, as well as in the number of travelers who spent a night (Table 5). However, Flathead County had the highest "capture" rate. Seventy-four percent of the visitors who traveled through the county actually spent a night there, compared to 48 percent in Gallatin County.

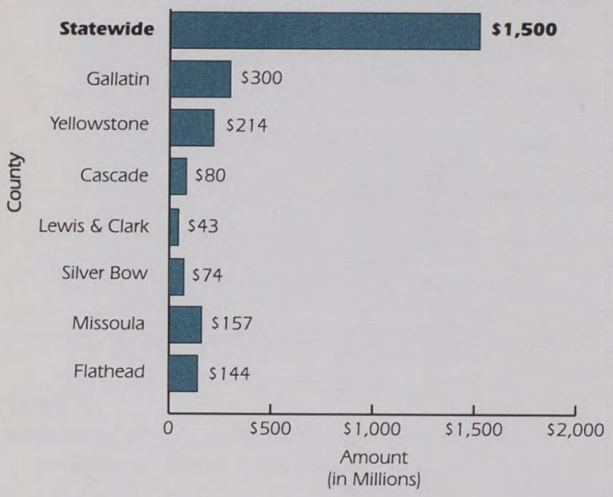
Overnight visitors to Lewis and Clark, Flathead, and Gallatin counties stayed in Montana longer than overnight visitors to other major counties (Figure 2). It is important to note that these numbers represent days spent in **Montana** and not necessarily spent in each respective county.

Visitor Expenditures

Visitor expenditures show similar trends. Overnight visitors to Gallatin and Flathead Counties exhibited the highest average daily expenditures in the state (Figure 3). Naturally, the high average daily expenditures, combined with the long length of stay in Montana, results in high average trip expenditures in Montana. In addition, visitors to Gallatin and Flathead counties were more likely to be vacationing than driving through or visiting family and friends. Since vacationers tend to spend more money than other types of travelers, it is logical that visitors to these counties exhibited among the largest average trip expenditures in the state.

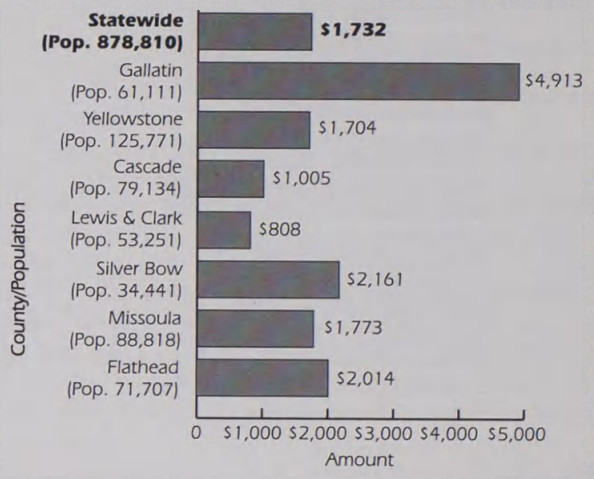
However, this theory does not apply in Lewis and Clark County. Even though 61 percent of this county's visitors are vacationers

Figure 5
Total Spending in Area



Note: Spending could have been by those staying in an area or just passing through.
Source: Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Figure 6
Visitor Spending Per Capita



Source: Census and Economic Information Center, Montana Department of Commerce; Institute of Tourism and Recreation Research, The University of Montana-Missoula.

Table 6
Nonresident Summer Visitor Characteristics, Purpose of Trip to Montana (Percent)

	Statewide		Gallatin		Yellowstone		Cascade		Lewis & Clark		Silver Bow		Missoula		Flathead	
Purpose of trip to Montana	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason	All Reasons	Primary Reason
Vacation	77	49	89	64	71	37	83	52	85	61	77	46	79	45	96	76
Visit family/friends	31	16	27	12	37	19	35	15	36	15	26	14	38	17	30	13
Business	10	6	8	5	14	10	12	10	15	10	10	7	12	8	7	3
Recreational shopping	9	1	8	0	10	0.1	12	1	7	0	7	0	8	0.2	10	0.3
Necessity shopping	4	1	2	0	5	1	3	0	4	0.2	4	0	4	1	2	0
Convention/meeting	3	2	3	2	6	4	3	1	3	1	2	1	2	1	2	1
Passing through	31	21	23	13	33	22	26	18	16	10	42	30	33	23	13	5
Medical	2	1	1	0.1	4	2	1	1	1	0	1	0.2	2	1	0.4	0.4
Other	4	3	5	4	6	4	3	2	5	3	4	2	6	5	4	2
		100		100		100		100		100		100		100		

Source: Institute of Tourism and Recreation Research, The University of Montana-Missoula.

and they stay in Montana for the longest amount of time, they spend almost the least amount per day. Its likely that spending is low for Lewis and Clark County visitors because most of them drive right through or stop in the county for only a few hours. However, since their length of stay in Montana is long enough, visitors to the county still produce high average trip expenditures in the state.

Spending and Per Capita Income

In terms of spending in the county and per capita, Gallatin County was in the forefront of both categories in 1998, bringing $300 million to the county and $4,913 per capita (Figures 5 and 6). On the bottom of both categories was Lewis and Clark County, with total visitor spending of $43 million and per capita spending of $808.

Vacationing, Passing Through, or Visiting?

Gallatin County (with Yellowstone National Park) and Flathead County (with Glacier National Park) had more people on vacation than any of the other seven counties. Silver Bow County had the highest number of people simply passing through. Missoula and Yellowstone Counties, both with a high population base, have the greatest percent of nonresidents visiting family and friends.❑

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Manufacturing in Montana: Growth Slows as Decade Ends

by Charles E. Keegan III and Robert Campbell

Montana's Manufacturing Sector

Both nationally and in Montana, this sector includes traditional heavy industries, as well as a broad array of other activities ranging from the production of very complex and sophisticated high technology equipment to cottage industries producing handmade items like jewelry or sporting goods.

The state's manufacturing sector:

- produces approximately $5 billion in output annually,
- directly employs nearly 30,000 workers earning more than $900 million in annual labor income,
- includes over 2,000 entities such as factories and plants, logging companies, and at-home cottage industries.

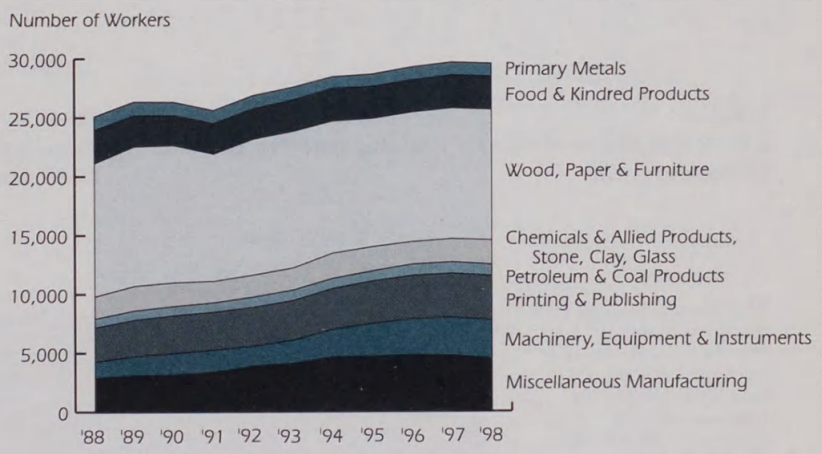
Earnings per Worker

In the past decade, manufacturing has boosted the average earnings of working people in Montana. Even though the average inflation-adjusted labor income per manufacturing worker declined by about 4 percent over the past 10 years, it is still 30-40 percent higher than the average income earned by all Montana workers (Table 1). The state's manufacturing workers earn nearly $30,000 per year, while service and retail trade workers earn approximately $19,000 and $14,000, respectively. The higher labor income in manufacturing is due to both higher wages and higher benefits. However, Montana manufacturing workers earn only two-thirds of the average income of their counterparts nationwide. Every major manufacturing category in the state pays below the national average.

Current Market Conditions

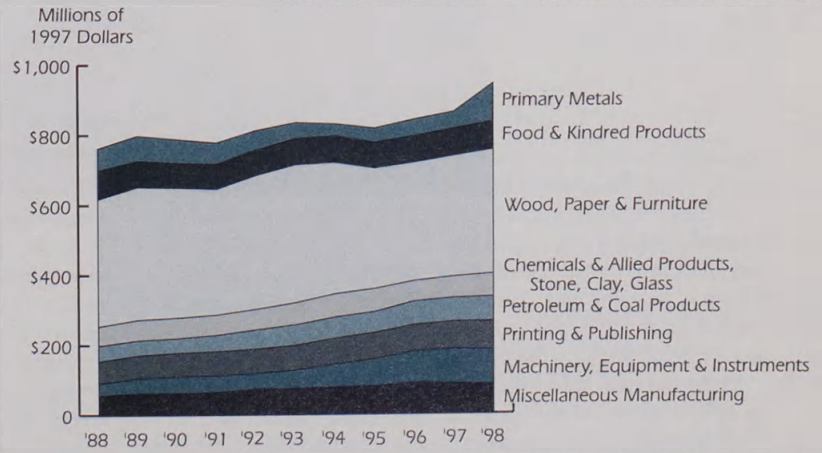
In the second half of 1997, Japan and a number of other Asian countries experienced sharp declines in economic activity, while U.S. and Western European economies remained strong. When the "Asian flu" first appeared, most analysts projected relatively short-term impacts, lasting six to 18 months. However, economic conditions in Asia have been worse than

Figure 1
Montana Manufacturing Employment, 1988-1998



Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Bureau of Economic Analysis, U.S. Department of Commerce.

Figure 2
Labor Income in Montana Manufacturing Industries, 1988-1998



Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Bureau of Economic Analysis, U.S. Department of Commerce.

Table 1
Labor Income Per Worker and Number of Workers By Manufacturing Category, 1988-1997

	Montana				United States	
Manufacturing Categories	1988 Number of Workers	1988 Average Earnings*	1997 Number of Workers	1997 Average Earnings*	1988 Average Earnings*	1997 Average Earnings*
Petroleum	754	$59,682	968	$70,247	$67,671	$75,645
Primary Metals	1,165	54,936	1,103	43,517	51,003	52,764
Wood, Paper, Furniture	11,312	32,178	11,111	31,140	35,410	35,316
Chemicals	1,883	29,208	1,968	30,995	51,211	62,988
Machinery, Equipment, Instruments	1,375	25,545	3,244	30,517	46,732	51,113
Food and Kindred	2,815	28,774	2,802	27,480	35,189	34,992
Printing and Publishing	2,901	21,717	3,740	21,123	36,661	38,649
Miscellaneous	2,885	19,064	4,740	18,143	31,172	32,115
All Manufacturing	25,090	$30,371	29,676	$29,114	$41,543	$44,088

*Constant 1997 dollars.
Source: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula.

Table 2
Labor Income in Montana's Manufacturing Sectors, 1988 and 1998

	Million 1997 Dollars			
	1988		1998	
Wood, Paper, & Furniture Products	364	48%	356	37%
Machinery, Equipment, & Instruments	35	5%	100	11%
Miscellaneous Manufacturing*	55	7%	83	9%
Printing & Publishing	63	8%	82	9%
Food & Kindred Products	81	11%	79	8%
Petroleum & Coal Products	45	6%	70	7%
Chemicals & Allied Products, Stone, Clay, Glass	55	7%	66	7%
Primary Metals	64	8%	109	12%
All Manufacturing	762	100%	945	100%

*Miscellaneous Manufacturing includes mostly light manufacturing such as sporting goods, musical instruments, games and toys, and jewelry, but it also includes such things as fabricated metals.

Table 3
Employment in Montana's Manufacturing Sectors, 1988 and 1998

	Number of Workers			
	1988		1998	
Wood, Paper, & Furniture Products	11,312	45%	11,098	38%
Miscellaneous Manufacturing*	2,885	11%	4,506	15%
Printing & Publishing	2,901	12%	3,764	12%
Machinery, Equip. & Instru.	1,375	5%	3,246	11%
Food & Kindred Products	2,815	11%	2,813	10%
Chemicals & Allied Products, Stone, Clay, Glass	1,883	8%	2,068	7%
Primary Metals	1,165	5%	1,100	4%
Petroleum & Coal Products	754	3%	971	3%
All Manufacturing	25,090	100%	29,565	100%

*Miscellaneous Manufacturing includes mostly light manufacturing such as sporting goods, musical instruments, games and toys, and jewelry, but it also includes such things as fabricated metals.

Sources: Bureau of Business and Economic Research, The University of Montana-Missoula, Bureau of Economic Analysis, U.S. Department of Commerce.

expected, with Japan experiencing its worst recession since World War II, and a full course of the flu spreading to other regions.

Perhaps the major measurable impact on Montana manufacturing has been lower prices for products. For example, lumber prices were at or near record high levels through the first half of 1997 (Figure 1, page 26). But with reduced global demand, lumber prices fell sharply. By the end of 1998, prices were 10 percent to 25 percent below levels in the first half of 1997.

Estimated sales value of all manufactured products in Montana for 1998 was down slightly from an estimated $5 billion for 1997. Employment for 1998 appears to be little changed from 1997 levels (Figure 1).

Labor income increased from $863 million in 1997 to an estimated $945 million in 1998, primarily due to a one-time $65 million payment (after legal fees) to Columbia Falls Aluminum Plant workers to settle a labor agreement (Figure 2).

In the last half of 1998, Montana's manufacturing industry experienced curtailments and layoffs, most prominently in the wood and paper products and high technology sectors. The impacts have been felt by many Montana manufacturers, including a number of the largest and most important manufacturers. For example, in the past year, Semitool Inc. in Flathead County has laid off 30 percent of its worldwide work force, Stone Container Corporation paper mill in Missoula County closed for a month, and Advanced Silicon Materials Inc. in Silver Bow County postponed a major expansion.

The international economic problems have been somewhat offset by a very strong U.S. economy and by 1998's mild weather, which allowed higher than expected timber harvesting and wood products manufacturing.

Montana manufacturing employment levels are expected to decline during the first half 1999 because of the lingering impacts of the global economic situation.

Forecasters indicate there is a 25 percent chance that a global recession will cause a U.S. recession, with a 5 percent chance that it will be severe. If the Asian crisis worsens and expands, we can expect more substantial declines in employment.

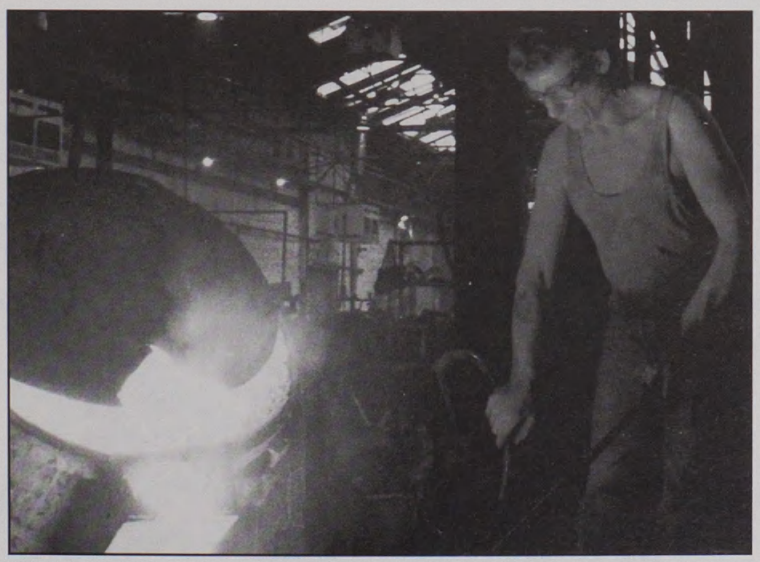
The U.S. economy remains very strong and there are new plants and expansions underway. We do expect a return to increased manufacturing activity when global economic conditions improve.❑

Charles E. Keegan is director of forest industry research at the Bureau of Business and Economic Research, The University of Montana-Missoula. Robert Campbell is resource director at Montana Business Connections.

Table 4
Manufacturing Labor Income Among Montana Counties, 1996

	1996 Manufacturing Labor Income (Millions of 1997 Dollars)	Percent of State's Manufacturing Labor Income
Flathead	172	20%
Yellowstone	149	17%
Missoula	131	15%
Gallatin	79	9%
Lincoln	42	5%
Cascade	38	5%
Lewis & Clark	37	5%
Ravalli	34	4%
Lake	26	3%
Silver Bow	16	2%
Park	14	2%
Powell	12	1%
Richland	10	1%
Stillwater	10	1%
Remaining 42 Counties	87	10%
State Total	857	100%

Sources: Bureau of Business and Economic Research, The University of Montana-Missoula; Bureau of Economic Analysis, U.S. Department of Commerce.



Montana's Forest Products Industry: Production Declined in Late 1998

by Charles E. Keegan III

Global Impacts

In 1998, Montana's forest products industry performed somewhat better than expected given the expanding Asian financial crisis. 1998 lumber and plywood production slightly exceeded 1997 levels, but much of the increase was due to mild weather, which allowed higher than normal levels of logging and temporarily increased log supplies.

The impacts of the worsening Asian financial crisis, which caused a sharp drop in prices in the last half of 1997, prevented product prices from increasing even with record levels of lumber consumption in the United States (Figure 1).

The economic crisis also further weakened the Canadian dollar, thereby enhancing the competitive position of Canadian producers.

1998 Employment and Production

Estimated forest industry employment for 1998 was 11,100, unchanged from 1997 (Figure 2).

Lumber production in 1998 was up slightly to 1278 MMBF from 1231 MMBF in 1997. Plywood production increased by about 5 percent in 1998 (Figure 3).

In the last quarter of 1998, the forest products industry has seen market-related curtailments and closures, and the outlook for 1999 is uncertain.

Outlook

The U.S. economy is expected to slow in 1999, causing housing to drop off from very high levels of 1998. However, consumption should remain high.

The Asian economic problems have lasted longer than expected, though global economies are gradually improving and wood product prices should begin to increase.

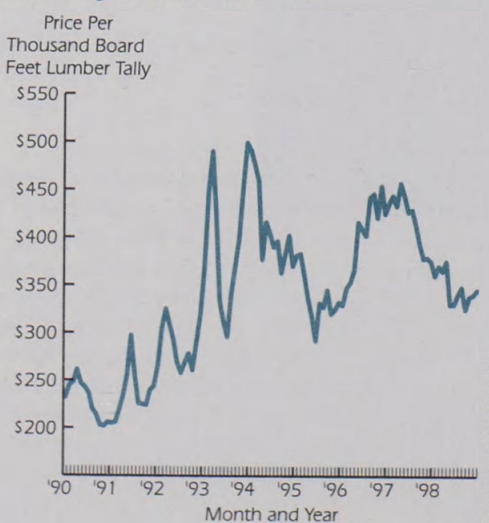
The global situation does pose some significant risks for Montana producers. There is about a 25 percent chance that a global recession will cause a U.S. recession, with a 5 percent chance that it will be severe. A global recession might impact Montana's forest products industry the same way it did during the 1980-1982 recession. In the early 1980s, mills faced low prices and had timber under contract that they could not afford to harvest. By 1982, severe recession conditions idled half of the state's milling capacity.

When the global economy recovers, we can expect a return to historically high product prices.

Timber availability remains a key long-term concern. The expiration of the salvage rider and weaker markets have caused the 1998 national forest sale program to drop by 30 percent from 1996 and 1997 levels (Figures 5 and 6). ❑

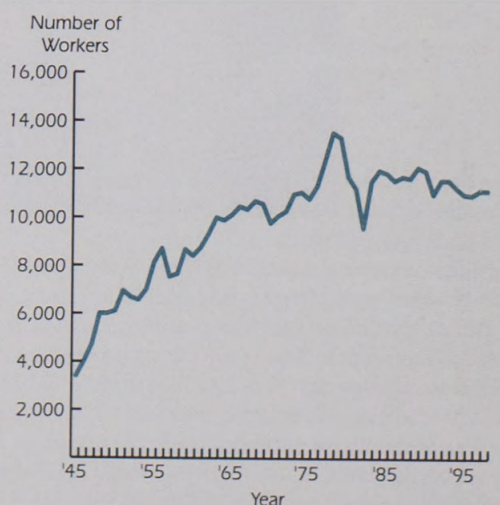
Charles E. Keegan III is director of forest industry research at the Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 1
Nationwide Composite Lumber Prices Monthly, 1990-1998



Source: Random Lengths Publications.

Figure 2
Montana Forest Industry Employment, 1945-1998



Source: Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Business and Economic Research, The University of Montana-Missoula.

Figure 3
Montana Lumber and Plywood Production, 1945-1998

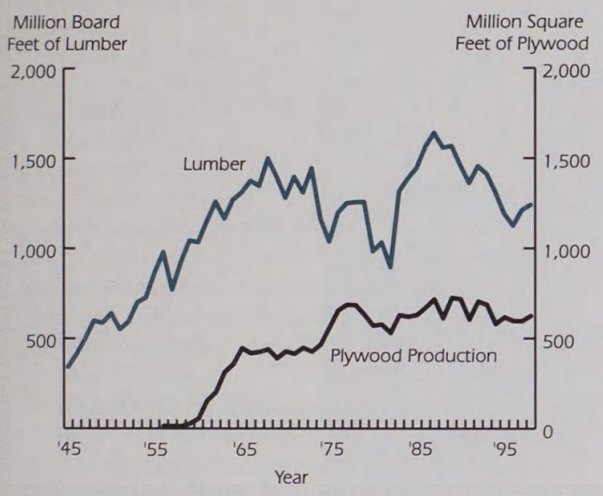
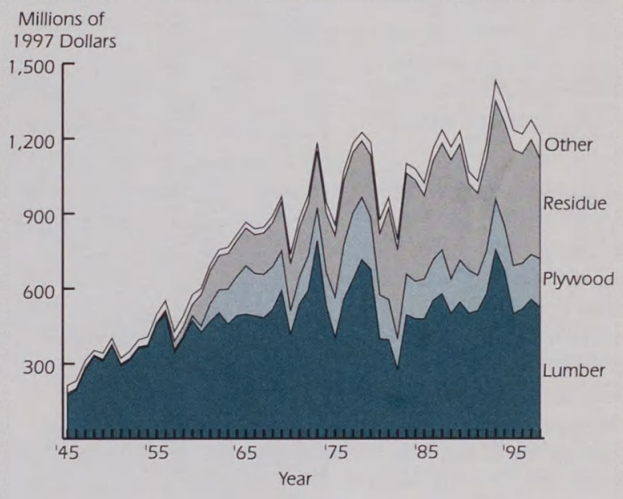
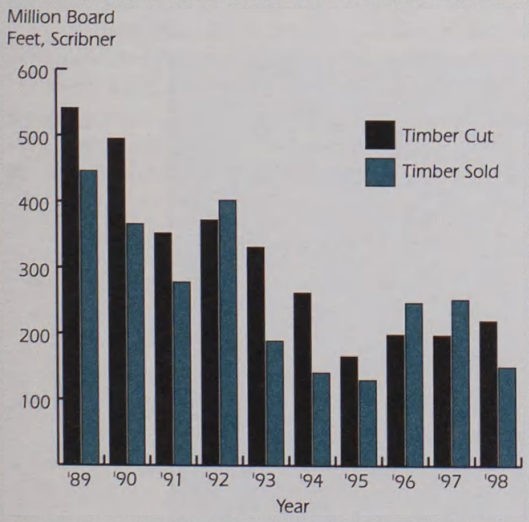


Figure 4
Sales Value of Montana's Wood and Paper Products, 1945-1998



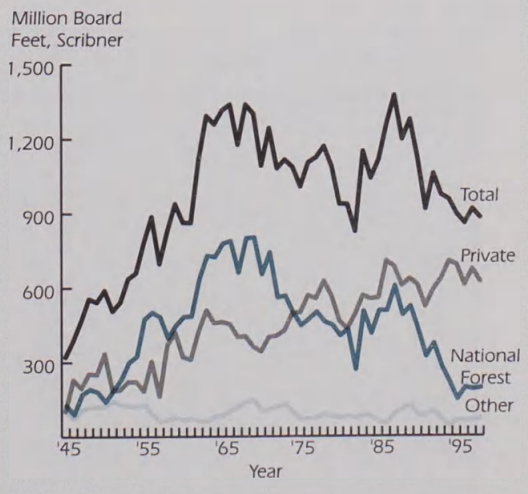
Source: American Plywood Association; Bureau of Business and Economic Research, The University of Montana-Missoula; Western Wood Products Association.

Figure 5
Montana National Forest Timber Cut and Sold Volumes, Fiscal 1989-1998



Source: USDA Forest Service Region One, Missoula, Montana.

Figure 6
Montana Timber Harvest by Ownership, 1945-1998



Source: Bureau of Business and Economic Research, The University of Montana-Missoula; USDA Forest Service Region One, Missoula, Montana.

Montana Agriculture:
Volatile Prices Draw Attention to the Industry

by Myles Watts

Agriculture continues to be Montana's largest industry, with about 80 percent of the state's agricultural cash receipts coming from cattle, wheat, and barley. In fact, the only other crops that generate 2 percent or more of the agricultural marketing receipts are hay (5 percent), sugar beets (3 percent), and dairy (2 percent). However, some products have substantial local importance. For example, potatoes are important in Gallatin County and sheep are important in Carter County.

Montana's agriculture is land extensive, ranking Montana second among all states in the number of acres in farms and ranches, but 31st in the number of farms and ranches. Montana rank Seventh in calf crop, third in wheat production, and second in barley production. This impressive production pattern is due to a relatively arid northern climate and land that is distant from population.

During the past year, agricultural prices have been particularly volatile. The 1998 feeder calf prices were about $12 per hundred weight (cwt) lower than in 1997, and wheat prices were down about 50 cents per bushel. As a result, there was an unusual amount of attention on agricultural issues. Estimating the causes of these price changes is complicated. However, an understanding of these markets is helpful for determining future commodity prices.

1998 Beef Prices

Many factors contributed to the decline in beef prices. The factors, listed in order of importance, are:

1) The softening export market for beef—and particularly for byproducts—depressed prices by about $4.50 cwt. The depressed market for hides, mostly exported to Korea, accounted for over half of the $4.50 cwt.

2) Large competitive supplies of pork and poultry depressed beef prices by about $3.50 cwt. The movement to highly cost efficient, large-scale poultry production continues to put competitive pressure on beef production. While technological adjustment continues in beef production, it is not likely to be as substantial or as cost-reducing as in pork.

3) Cattle were unusually heavy in 1998, resulting in more beef on the market. Evidently, cattle were held when prices began to decline and subsequently slaughtered at heavier weights. These heavier weights decreased prices about $2.50 cwt.

4) Declining retail beef expenditures lowered prices by about 50 cents. Part of the reason for the declining beef market is that older people consume less red meat than younger people. So, as the U.S. population ages, per capita beef consumption and expenditures decline.

Table 1
Beef and Wheat Prices and Production, 1990-1999

	BEEF			WHEAT	
Year	Production-U.S. (1,000,000 lbs.)	Consumption-U.S. (lbs. per capita)	Price-MT ($ cwt)	Production-World (1,000,000 metric tons)	Price-MT ($/bu)
1990	22,743	67.8	70.60	538	2.65
1991	22,917	66.8	69.80	588	3.17
1992	23,086	66.5	66.50	543	3.42
1993	23,049	65.1	75.60	542	3.5
1994	24,386	67.0	71.60	559	3.54
1995	25,222	67.4	59.80	525	4.63
1996	25,525	67.6	53.80	536	4.00
1997	25,419	66.9	64.50	525	3.62
1998*	25,550	68.5	54.00	612	3.12
1999**	—	—	69.00	585	3.60

*Preliminary
**Expected
Source: U.S. Department of Agriculture.

5) The increased wholesale-retail margin decreased beef prices by about 50 cents. Agriculture experts are currently analyzing the discrepancy between grocery store shelf prices and prices received by slaughter/packing facilities.

6) Canadian beef imports reduced prices by about 50 cents. International trade, and particularly Canadian trade, has been of major concern to many Montana beef producers. Many producers would like to see Canadian imports discontinued. If this happens, Canadian beef will be marketed elsewhere and will still influence prices and provide competition for Montana producers.

1998 Wheat Prices

The 1998 wheat price decline has received substantial attention. While some of the decline was offset by higher prices for higher protein wheat, the average price declined by 50 cents per bushel in 1998. The majority of the price decline is traced to increased worldwide production. Production in 1998 was estimated at more than 600 million metric tons, up from 525 million metric tons in 1997. International prices have not absorbed the increased production without a price decline. Even though the Asian countries continued to import about the same quantities of wheat, the "Asian flu" may have precluded importing larger quantities at lower prices. U.S. wheat consumption is relatively stable and insensitive to price.

During 1998, farmers were compensated for declining wheat prices through additional government payments. They received the scheduled 1998 "Freedom to Farm" transition payment of 66 cents per bushel and an additional allocation of 33 cents per bushel due to congressional action. Farmers had the option of accelerating the 1999 transition payment of 63 cents bushel into 1998. Furthermore, some farmers were eligible for a loan deficiency payment ranging from 30 cents to 40 cents per bushel. The higher government payments more than offset the lower market prices.

Outlook

Beef prices are expected to be more similar to 1997 levels, or about $12 cwt higher for feeder calves in 1999. In the longer term, the major concerns are the continued competition from pork and poultry, particularly the lower cost pork production and the aging U.S. population. Long-term beef trade expansion has the most potential to increase beef prices. Because of the climate and land resources, the U.S. has a comparative advantage producing feeder cattle and feed grain, and thereby high quality beef. The international market for high quality beef will expand quickly and substantially if overseas government restrictions are removed.

Wheat prices are likely to be about $3.40 per bushel, unless we have another year with worldwide production of 600 million metric tons. Because 1999 government transition payments were accelerated into 1998, those payments will not be available in 1999. However, Congress is being pressured to appropriate more money in 1999 for wheat producers. ❑

Myles Watts is the department head of Agricultural Economics and Economics at Montana State University-Bozeman.

Jobs and Wages in Montana's Service Industry

by Steve Seninger

Two major patterns were evident in Montana's jobs and wages from 1991 to 1997. First, dramatic employment growth occurred in the nonbasic, trade, and service job sectors. Second, Montana's urban areas continued to develop as regional trade and service centers.

Growth Mainly in Retail Trade and Service Jobs

For the past several years, retail trade and service jobs have dominated the growth in Montana's employment base. Employment growth in Montana's trade/service center counties was strong from 1991 to 1997, with average annual percentage growth rates ranging from nearly 6.2 percent in Gallatin County and 4.23 percent in Missoula County to less than 1.5 percent in several other counties (Table 1). The job growth rates in Montana's trade and service sectors were greater than national growth rates through much of the 1990s.

The share of nonbasic industry jobs averaged about 70 percent of the total employment in Montana's trade/service center counties. The major portions of the nonbasic sector include retail trade, finance/insurance/real estate, and services.

Despite the state's impressive job growth in the trade and service sectors, real income per worker has barely grown during the 1990s (Table 2). In fact, real earnings per worker in Montana's trade, service, and finance/insurance/real estate job sectors has lagged behind national rates of earnings growth. However, there have been some exceptions.

Certain fast growing regions—like Yellowstone, Gallatin, and Missoula counties—have experienced earnings gains in the services and finance/insurance/real estate sectors. And some

Table 1
Job and Earnings Growth, 1991-1997

County	Average Annual % Growth in Employment	Average Annual % Growth in Earnings Per Worker	% Employed in Basic Industries	% Employed in Nonbasic Industries
Cascade	1.45	.663	18.8	81.2
Custer	1.43	.662	25.6	74.4
Flathead	4.5	.38	28.8	71.2
Gallatin	6.19	.685	34.3	65.7
Lewis & Clark	2.96	.79	32.9	64.1
Missoula	4.23	.156	25.8	74.2
Richland	1.95	.315	27.7	72.3
Silver Bow/Deer Lodge	2.79	.455	23.5	76.5
Yellowstone	2.48	1.01	20.2	79.8
Montana	3.22	.409	20.4	76.0

Source: Montana Department of Labor and Industry.

Table 2
Job and Earnings Growth in Trade and Services, 1991-1997

	— 1997 Percent of Total Employment —			— 1991-1997 Average Annual Growth in Earnings Per Worker —		
County	Retail	Finance/Insurance Real Estate	Services	Retail	Finance/Insurance Real Estate	Services
Cascade	26.3	6.6	31.0	.25	.03	.29
Custer	23.7	5.1	27.1	.93	-.42	1.15
Flathead	24.7	4.3	28.6	1.16	1.59	1.73
Gallatin	25.6	3.5	24.9	.73	1.55	1.46
Lewis & Clark	18.1	6.5	29.0	-.53	1.82	1.41
Missoula	24.5	4.5	29.4	-.01	1.98	1.26
Richland	23.5	3.0	21.5	-.42	-1.09	2.5
Silver Bow/Deer Lodge	23.7	3.2	30.4	.49	2.35	-.95
Yellowstone	24.2	5.3	29.3	.78	2.51	1.24
Montana	22.7	4.5	28.3	.27	1.87	1.03

Source: Montana Department of Labor and Industry.

sectors of Montana's service industry have noted strength and growth in real labor income as shown in Table 3. They are:

- business services (advertising, building maintenance, computer/data processing);
- health services; and
- engineering and management services (consultants, public relations, engineering/architectural).

Urban Areas Remain Regional Trade and Service Centers

Montana's rise of nonbasic, trade, and service activities has been accompanied by expanding geographic market areas for centers like Sidney and Miles City, Billings, Kalispell, and Missoula. These areas now serve larger geographic markets and regularly attract people who travel from greater distances to shop and work. This geographic extension of Montana's urban market areas means communities are "exporting" trade goods and services outside their local economies. These urban areas are also experiencing some degree of transition from basic to nonbasic industries.

Health services are an important source of jobs and income in each of the state's trade/service center counties. Health services account for almost one-third of the total jobs in the service sector, and generate strong growth in real income per worker. Engineering and management services, as well as business services, have also been important sources of jobs and earnings in many counties (Table 3).

Employment and Earnings Growth Vary by Region

From 1991 through 1997, considerable regional diversity was apparent in the growth of service jobs and earnings per worker. Robust growth in Yellowstone County's health services reflects Billings' position as a major health care center serving Eastern Montana and Northern Wyoming. Helena and Bozeman experienced significant growth in business services and health services, and trade centers in Eastern Montana showed earnings growth in business services (Sidney) and in health services (Miles City). In addition, earnings growth per worker in engineering and management services in Missoula and Helena were above the state's growth rate.

Outlook for 1999

Services and retail trade will continue to dominate employment in Montana's urban areas. Some sectors, like health services, will experience short-term readjustment in employment due to consolidation reorganization. ❑

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Table 3
Job and Earnings Growth in Major Service Sectors, 1991-1997

	1997 Percentage of Total Service Employment			1991-1997 Average Annual Growth in Earnings Per Worker		
County	Business	Health	Engineering	Business	Health	Engineering
Cascade	10.5	38.6	5.8	-.708	.508	-.033
Custer	9.6	46.6	3.3	-2.96	3.4	-.85
Flathead	16.6	32.6	4.7	.909	1.85	4.10
Gallatin	10.4	18.7	10.2	3.52	1.33	1.29
Lewis & Clark	10.8	26.6	10.5	2.68	1.19	2.91
Missoula	14.6	34.8	6.5	.643	1.37	2.66
Richland	1.8	5.4	7.9	3.12	1.59*	1.42
Silver Bow/Deer Lodge	8.6	32.9	11.8	.455	.027	-.121
Yellowstone	16.2	34.1	8.7	1.63	3.28	-.01
Montana	12.6	32.3	6.9	1.47	1.63	1.59

*Does not include 1997 figures.
Source: Montana Department of Labor and Industry.

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